The Physico-chemical Constants of Binary Systems in Concentrated Solutions

VOLUME 4

SYSTEMS WITH INORGANIC + ORGANIC OR INORGANIC COMPOUNDS
(Excepting Metallic Derivatives)

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Preface to Volume 4

In this fourth and last volume, I did collect the data on binary mixtures with at least one inorganic component, the metallic derivatives excepted, as these mixtures were covered in the third volume.

In the preparation of this volume I was struck once more by the negligence of so many authors who repeat, without great accuracy, measurements whose results have already been published many times; this is especially the case with mixtures of water + ethyl alcohol and water + sulfuric acid. Therefore, for the older or less accurate data, I gave here only the bibliographic references, but not the numerical data.

At the end of this volume, I give also some errata which have already been pointed out to me; and a list of desiderata, that means a short list of papers that I was still unable to find: they would interest me, only if there are in them numerical data about concentrated binary mixtures or accurate data on very pure organic compounds; and to anybody who is able to help me in that matter, I would be very grateful.

At the end of this long time used for this publication by offset printing, I wish to thank heartily my collaborators of five years, Dr. Lewin and Mrss. Kupkova, Laplanche, Moeyeart and Potache; and all my thanks go also to the Publisher for his care in editing this work.

Brussels
July, 1960 Jean Timmermans

Contents

R. WATER + ORGANIC SUBSTANCES, EXCEPTING HYDROXYL DERIVATIVES.

LVIII. WATER + HYDROCARBONS AND HALOGEN AND OXYGEN DERIVATIVES.

Water + Methane (CH_4)

Olds, Sage and Lacey, 1942

Dew point.

mol %	P kg	mol %	P kg
	37.8°		
0.0408	635.5	0.0630	212.7
0.0423	284.4	0.0645	212.3
0.0423	494.6	0.0671	140.0
0.0427	564.6	0.1278	84.8
0.0484	425.5	0.1467	87.9
0.0506	353.5		
	71.1°		
0.1692	694.9	0.3394	146.8
0.1890	426.3	0.4503	98.3
0.2128	421.9	0.6417	64.2
0.2301	287.4	1.335	27.2
	104.4°		
0.4620	637.3	0.8459	213.3
0.4943	569.8	1.120	140.8
0.5336	492.0	1.545	95.0
0.6253	361.0	2.069	67.2
0.7123	284.2	4.281	30.5
	137.8°		
1.206	702.1	3.152	143.4
1.345	565.6	4.145	100.6
1.437	492.7	5.899	66.8
1.671	362.8	11.083	34.8
1.898	286.9		
	171.1°		
2.616	702.2	5.362	216.0
2.971	568.6	7.106	145.1
3.154	497.1	10.935	89.2
3.457	427.1	25.334	35.1
4.384	286.9		
	204.4°		
5.328	700.8	11.360	212.0
6.082	567.1	22.827	89.9
6.519	496.1	30.267	65.4
7.961	354.8	55.557	34.3
	237.8°		
10.641	607.0	21.287	214.2
12.391	494.7	28.510	147.2
14.889	363.0	40.033	97.0
17.565	282.1	65.459	54.2

Water (H_2O) + Ethane (C_2H_6)

Kuenen and Robson, 1899

b.t.	p dew point	p boiling point
	$V+L_1+L_2$	
14.95	33.59	34.00
22.95	40.07	40.46
32.15	48.81	48.81

(H_2O) (b.t.=100°) + Hydrocarbons

Lecat, 1949

2nd Comp.			Az	
Name	Formula	b.t.	%	b.t.
Pentane	C_5H_{12}	36.15	-	34.9
Hexane	C_6H_{14}	68.8	-	61.55
Heptane	C_7H_{16}	98.4	-	80.0
Octane	C_8H_{18}	124.75	-	89.4
Decane	$C_{10}H_{22}$	173.3	-	97.2
Diisoamyl	$C_{10}H_{22}$	160.1	-	96.1
Methyl-cyclohexane	C_7H_{14}	101.15	-	81.0
Cyclohexane	C_6H_{12}	80.75	91	68.95
Cyclohexene	C_6H_{10}	82.75	90	70.8
1.3-Cyclo-hexadiene	C_6H_8	80.4	91	68.9
1.4-Cyclo-hexadiene	C_6H_8	85.8	-	71.3
Camphene	$C_{10}H_{16}$	159.6	-	96.0
Benzene	C_6H_6	80.2	-	69.25
Toluene	C_7H_8	110.75	80.3	84.43
Mesitylene	C_9H_{12}	164.6	-	96.5

(H_2O) + Pentane (C_5H_{12})

Scheffer, 1914

t	P (triple point)	P_2	P_1	P
150	22.4	17.3	4.7	22.0
160	27.0	20.3	6.05	26.35
170	32.4	23.7	7.8	31.5
180	38.8	27.6	9.8	37.4
187.1	44.1	30.7	11.6	42.3

(H_2O) + Hexane (C_6H_{14})

Harkins and Humphery, 1916

σ (L_1/L_2) at 25° = 49.54

(H_2O) + Ethylene (C_2H_4)

Villard, 1897

t	p dissoc.	t	p dissoc.
0	5.5	12.3.	12.80
7.2	12.35	15	32.85
9.6	16.35	17	44.80

(6+1)

Diepen and Scheffer, 1950

t	P	t	P
	L + V (100%)		
9.5	49.95	- 5.0	35.90
5.0	45.40	-10.0	32.05
0.0	40.45	-15.0	28.20
	C_2 + L_1 + V		
9.8	49.95	- 5.0	35.90
5.0	45.10	-10.0	32.00
0.0	40.25	-15.0	28.20
	L_1 + L_2 + V		
9.7	49.90	3.0	43.15
9.0	49.15	0.0	40.25
6.0	46.10		

P	mol %	P	mol %
15°		25°	
(1+1) + V		L + V	
115	99.70	93.8	99.90
77	99.67	84.5	99.87
57	99.66 (sic)	75.2	99.90
43	99.81	63.0	99.85
39	99.72	56.6	99.87
28	99.87	47.2	99.89
		37.9	99.88
	C_2 + L_2 + V		
18.0	53.90	3.2	7.73
17.6	48.50	2.6	7.22
16.9	43.65	2.3	7.03
16.4	39.90	2.0	6.76
15.3	33.95	1.6	6.51
14.2	29.60	1.4	6.33
12.7	24.65	1.2	6.22
11.0	19.60	0.8	5.96
8.7	14.85	0.6	5.94
6.7	11.82	0.4	5.71
5.4	10.20	0.2	5.61
4.4	8.94	0.0	5.54
3.2	7.69		
	C_1 + C_2 + V		
-1.0	5.25	-4.0	4.70
-2.0	5.07	-4.0	4.72
-3.0	4.86		

(H_2O) + Acetylene (C_2H_2)

Villard, 1897

t	P dissoc.	t	P dissoc.
0	5.75	9.6	16.4
+4.6	9.4	15.0	33.0
7.0	12.0		

(6+1)

(H_2O) + Turpentine ($C_{10}H_{16}$)

Regnault, 1862

t V	t L	p
66.49	71.62	184.96
69.86	73.44	185.71
71.04	73.50	186.21
71.08	73.30	186.09
71.24	73.26	186.11
75.41	77.08	231.60
75.33	77.18	231.78
75.94	77.89	232.18
76.33	78.02	232.32
76.49	77.91	232.40
76.52	77.89	232.50
81.80	83.14	291.14
81.87	83.07	291.20
81.84	82.97	291.22
81.74	82.88	291.24
86.03	87.45	365.34
85.96	87.27	365.55
88.45	89.92	414.13
87.87	89.14	414.29
85.34(sic.)	88.99	415.87
88.56	90.34	418.30
90.12	92.45	420.00
93.45	96.63	513.57
95.47	96.40	514.03
99.12	101.72	740.78
99.18	101.29	740.78
65.71	71.61	184.70
77.57	82.99	349.34
94.75	96.98	751.34
99.48	101.80	754.31
100.41	101.63	754.18
100.45	101.67	754.18
112.35	114.19	1334.25
118.89	120.26	1630.94
126.19	127.55	2141.39
127.44	128.45	2120.58
131.86	133.42	2554.35

Vèzes, 1903

t	p	t	p
66.1	185	119.0	1631
77.1	349	126.5	2141
94.8	751	132.2	2554
112.3	1334		

L_1 + L_2

(H_2O) + Benzene (C_6H_6)

Scheffer, 1914

t	P	P_2	P_1
	$L_1 + L_2 + V$		
150	10.6	5.9	4.7
160	13.2	7.1	6.05
170	16.4	8.5	7.8
180	20.1	10.2	9.8
190	24.6	12.15	12.35
200	29.8	14.3	15.3
210	35.9	16.7	18.75
220	42.9	19.45	22.8
230	50.9	22.5	27.5
240.1	60.35	25.95	33.0
250.2	70.65	29.55	39.1
260.1	82.15	33.7	46.1
267.8	92.7	37.35	52.4
268.2	-	37.5	52.6

Young, 1902

Az : 8.83 % 80.2°

Regnault, 1862

b.t.	p	b.t.	p
	L_1+L_2+V		
10.10	54.92	18.01	83.00
10.53	56.03	19.88	91.49
12.38	61.93	22.53	104.28
15.26	72.34		

b.t.	p	b.t.	p
	50 vol %		
24.28	107.03	60.94	500.94
27.07	136.93	69.86	759.80
28.83	137.93	69.93	759.80
46.10	301.45	70.58	759.80
46.22	301.45	70.93	759.80
46.27	301.45	72.39	759.80
46.34	301.45	119.14	3239.86
59.44	500.73	133.33	4866.86

b.t.	p	b.t.	p
37.35	206.05	58.87	502.91
38.27	212.75	64.83	596.86
39.32	218.85	64.98	596.96
45.55	290.86	72.59	758.84
45.58	290.86	90.75	1410.89
51.36	371.17	90.94	1414.89
51.43	371.17	91.02	1417.09
58.84	502.91	91.43	1426.69

b.t.	p	b.t.	p
90.34	1394.79	119.50	3333.83
90.42	1403.49	119.69	3350.72
90.52	1396.79	129.74	4372.95
105.96	2274.10	129.87	4400.24
106.36	2288.50	141.41	5944.75
106.36	2291.10	141.73	5897.15
107.03	2299.70		

Harkins and Humphery, 1916

t	σ (L_1/L_2)	t	σ (L_1/L_2)
10	34.98	30	33.82
20	34.52	40	33.22
25	34.18		

(H_2O) + Toluene (C_7H_8)

Harkins and Humphery, 1916

σ (L_1/L_2) at 25° = 36.10

(H_2O) + Xylene (C_8H_{10})

Harkins and Humphery, 1916

σ (L_1/L_2) at 25° = 37.60

(H_2O) (b.t.=100°) + Halogen derivatives

Lecat, 1949

2nd Comp.			Az	
Name	Formula	b.t.	%	b.t.
Methylen chloride	CH_2Cl_2	40.0	98.5	38.1
Chloroform	$CHCl_3$	61.2	97.5	56.15
Carbon tetrachloride	CCl_4	76.75	-	69.0
Penta-chlorethane	C_2HCl_5	162.0	-	95.9
Isobutyl iodide	C_4H_9I	122.5	-	96.0
Acetylen dichloride cis.	$C_2H_2Cl_2$	60.25	98.1	55.3
Acetylen dichloride trans.	$C_2H_2Cl_2$	48.35	98.1	45.3
Propylen chloride	$C_3H_6Cl_2$	96.8	88.0	77.5
Allyliodide	C_3H_5I	101.8	90.0	80.7
Chlorbenzene	C_6H_5Cl	131.8	-	90.2

(H_2O) + Monofluordichlormethane ($CHFCl_2$)

Banks, Heston and Blankenship, 1954

t	p	t	p
	(17+1) + L_1+V		
0.09	115.6	3.50	243.4
0.26	121.0	4.43	299.3
0.33	121.6	4.70	314.4
0.84	135.6	5.65	391.2
0.98	141.3	5.72	395.6
1.19	147.0	6.10	432.2
1.55	161.3	6.24	450.3
1.76	166.8	6.97	524.6
2.32	188.4	7.04	529.6
2.34	189.1	7.73	616.2
2.70	204.2	7.92	647.5

t	p	t	p
	(17+1) + C + V		
-3.82	89.1	-1.73	100.4
-3.43	92.1	-1.68	101.4
-2.89	93.0	-1.56	102.9
-2.74	95.8	-0.91	105.9
-2.58	96.2	-0.88	105.2
-2.50	96.2	-0.61	107.4
-2.09	98.1	-0.21	109.7
-2.03	99.2	-0.16	110.0

t	p	t	p
	(17+1) + V + L_2		
-0.44	529.9	4.18	637.2
-0.08	536.0	4.45	644.1
+0.79	555.5	4.99	657.8
1.03	561.6	5.43	670.0
1.60	574.6	5.99	677.5
1.78	579.0	6.45	696.9
2.29	591.4	6.97	711.5
2.83	603.1	7.40	723.5
3.25	614.7	7.83	735.6
3.40	617.5		

t	p	t	p
	C_2 + L + V		
-0.49	525.1	4.00	628.4
+0.31	541.9	4.70	646.7
0.72	550.9	5.01	653.4
1.20	562.4	6.06	681.4
2.16	583.6	6.56	695.6
2.32	587.6	7.08	709.3
2.88	601.2	7.95	733.4
3.29	611.1	8.82	758.2

t	p	t	p
	V + L_1 + L_2		
1.02	561.5	4.96	658.1
2.35	593.2	6.02	684.5
3.11	610.7	7.05	714.0
4.03	633.7	7.95	739.3

(H_2O) + Chloroform ($CHCl_3$)

Tammann and Krige, 1925

P kg	t	$(Dv)_{pt}$ (cc/g)
	Dv melting of hydrate	
1	2.2	-
145	2.0	-0.0280
365	1.2	-0.0362
625	+0.1	-0.0509
900	-1.8	-0.0629
1390	-4.2	-0.0753
1740	-6.4	-0.0848

Reinders and de Minjer, 1947

%	b.t.	%	b.t.
L_1 + V		L_2 + V	
0.0	100.0	100.0	60.9
56.9	95.0	99.6	60.0
74.7	90.0	99.1	59.0
88.3	80.0	98.6	58.0
93.7	70.0	98.0	57.0
96.5	60.0	97.2	55.6
97.2	55.6		

(H_2O) + Carbon tetrachloride (CCl_4)

Regnault, 1862

t	p	t	p
	V + L_1 + L_2		
7.79	63.49	29.12	170.77
11.39	75.37	34.42	214.67
16.75	97.25	38.59	256.42
20.49	115.69	44.59	328.38
25.66	146.58		

(H_2O) + Ethyliodide (C_2H_5I)

Pierre, 1872

Az L_1 + L_2 + V   66°   96 vol %

(H_2O) + Ethylene Chloride ($C_2H_4Cl_2$)

Baranaev, Gilman, Kogan and Rodionova, 1954

% L	% V	b.t.
0.13	24.8	98.0
0.33	63.0	94.0
0.43	66.0	92.3
0.59	70.2	89.3
0.87	91.6	72.0

(H_2O) + Butyliodide (C_4H_9I)

Pierre, 1872

Az 96° 79 vol % $L_1 + L_2 + V$

(H_2O) + Chlorbenzene (C_6H_5Cl)

Bingham, 1907

C.S.T. = 220

(H_2O) + Carbon dioxide (CO_2)

von Wroblewski, 1885

P	cc gaz/1cc H_2O 0°	12.43°
1	1.797	1.086
5	8.65	5.15
10	16.03	9.65
15	21.95	13.63
20	26.65	17.11
25	30.55	20.31
30	33.74	23.25

t	P diss.(hydrate)	t	P diss.(hydrate)
0.48	12.7	5.3	21.8
2.7	16.7	6.1	23.3
3.6	17.9	6.8	26.1

Villard, 1899

t	P diss.	t	P diss.
-6.0	6.5	5.3	21.8
0.0	12.2	6.1	23.3
+0.48	12.7	6.8	26.1
2.7	16.7	10.0	44.3
3.6	17.9	(6+1)	

Tammann and Krige, 1925

t	P diss.	t	Pdiss.
-20	1064	-36	195
-24	755	-43	92
-29	486		

Sander, 1912

t	cc CO_2 at t. in 1 cc sol. in 0.210 cc	in 0.102 cc
	20°	
25	-	17.77
30	-	19.77
40	-	21.52
50	-	28.09
55	-	29.75
	35°	
30	11.77	13.57
40	14.82	20.00
50	18.96	24.64
60	22.90	22.50
70	27.18	27.62
80	-	32.85
	60°	
40	10.88	9.798
50	12.24	13.72
60	14.46	15.28
70	16.80	17.46
80	19.74	22.67
90	22.74	21.16
100	26.21	27.85
110	28.92	28.79
120	30.20	33.90
	100°	
60	8.965	-
70	10.11	6.395
80	11.05	9.591
90	12.65	10.85
100	13.63	12.40
110	14.88	16.31
120	16.40	15.78
130	17.93	16.89
140	19.56	17.71
150	20.58	17.49
160	22.07	-
170	22.78	-

Kuenen and Robson, 1899

t	P
$L_1 + L_2 + V$	
18.85	54.4
31.2	72.4
31.5	T.C.

Maas and Mcnnic, 1926

t	p_1	p_2
	70.08 %	
98.2	380.9	367.1
107.8	390.7	376.4
	72.29 %	
94.2	323.9	347.3
98.2	327.9	351.1
107.8	336.2	360.1
126.0	352.2	377.2
148.5	372.4	398.3
	70.62 %	
98.2	312.6	308.8
107.8	320.6	316.7
125.9	336.1	331.6
148.5	355.2	350.3
180.5	382.4	376.8

Francis, 1954

% L_1	L_2	t
6	99.896	25

Vargaftig and Timroth, 1952 (fig.)

mol % (V)	$K.10^6$	mol % (V)	$K.10^6$
	65°		
100	46.0	75	51
75	50.5	0	50
50	52.0		

K = thermal conductivity

(H_2O) + Carbon disulfide (CS_2)

Regnault, 1862

t	p	t	p
	50 vol %		
23.27	336.97	42.80	752.24
23.67	343.87	42.81	752.23
23.62	343.17	43.14	750.83
26.11	394.92	60.76	1344.87
26.41	397.42	60.81	1348.17
31.54	497.64	79.93	2385.65
31.55	497.64	80.04	2386.85
33.75	541.73	94.56	3312.83
33.76	541.73	94.37	3312.22
35.71	582.45	107.10	4449.88
35.86	586.95	108.37	4448.85
38.72	649.48	103.50	4439.82
38.82	652.88	126.35	6014.64

t	p	t	p
	$V + L_1 + L_2$		
8.85	196.81	14.10	247.43
12.07	225.93	22.43	347.17
18.85	299.52	38.35	634.60
26.87	412.28	33.80	498.74

Lecat, 1949

%	b.t.
97.2	42.6 Az
100	46.25

(H_2O) + Ether, ($C_4H_{10}O$)

Regnault, 1862

t	p	t	p
	$V + L_1 + L_2$		
15.56	362.95	26.73	562.79
20.40	440.32	27.99	589.38
24.21	510.08	33.08	710.02

Kuenen and Robson, 1899

t	P	t	P
	$V + L_1 + L_2$		
40	1.250	120	11.28
50	1.744	130	14.01
60	2.381	150	21.50
70	3.195	160	26.08
80	4.229	170	31.12
90	5.514	180	36.93
100	7.04	201	52.00
110	8.95		

de Boer, 1934

t	p	t	p
	$L_1 + L_2 + V$		
-19.5	72	+ 9.5	287.5
-15.6	82.5	11.4	313
- 8.0	128	11.9	319.5
- 7.0	131	12.0	321
- 6.5	134	15.0	365
- 5.2	147	16.0	380
- 4.0	157	18.3	418
- 3.8	158	19.0	430
- 3.1	164	19.9	456
- 2.2	170.5	20.8	462
- 1.9	172.5	25.1	547
- 0.1	188	30.0	655.5
0.0	188	31.6	699.5
+ 5.3	240.5	32.4	720
+ 7.8	266.5	34.5	785
+ 8.5	276.5		

$C_1 + L_1 + L_2 + V$: -3.8

Lecat, 1949

%	b.t.
98.7	34.15 Az
100	34.6

Klobbie, 1897

%	sat.t.	%	sat.t.
99.06	-3.5 -4	12.63	-3.5 -4
99.00	-3.5 -4	12.36	0.0
98.98	0.0	11.99	0.0
99.02	0.0	9.92	7.5
98.93	+5.0	9.36	8.5
98.92	8.0	8.19	12
98.89	14.5	7.63	16
98.86	14.5	6.69	19
98.79	18	6.42	19
98.80	19	5.04	30
98.80	20	4.68	38
98.73	20	4.11	49
98.67	30	4.07	51 - 52
98.38	48 - 49	3.60	62 - 63
98.28	51 - 52	3.41	65
98.20	55 - 56	3.12	66 - 67
97.90	75	2.98	71
97.67	90	2.90	72
97.29	95	2.70	82

Jüttner, 1901

mol %	sat.t.	mol %	sat.t.
0.810	26	1.283	6
0.926	20	1.445	0
1.042	15		

Osaka, 1910

%	sat.t.	%	sat.t.
5.07	30.4	8.13	12.3
5.33	28.0	8.69	10.0
5.60	26.0	9.07	8.6
5.90	24.0	9.22	7.9
6.28	22.0	9.67	6.3
6.56	20.0	10.16	4.5
7.00	18.0	10.70	3.2
7.33	16.4	11.18	1.1
7.73	14.5	11.25	1.0
7.98	13.5	11.61	0.0
8.07	12.4		

%	sat.t.	%	sat.t.
11.60	0	6.61	20
10.05	5	5.77	25
8.72	10	5.11	30
7.60	15		

Boutin and Sanfourche, 1919

%		t	%		t
L_1	L_2		L_1	L_2	
-	87.8	- 3.3	1.3	93.5	20
1.0	89.7	0	-	94.4	25
-	90.2	5	-	95.4	30
-	91.7	10	-	96.0	25
1.1	93.0	15			

Hill, 1923

sat.t.	%	
	L_1	L_2
30	98.591	5.340
25	98.662	6.027
20	98.736	6.896
15	98.760	7.913
10	98.836	9.040
0	98.922	11.668
- 3.83	99.022	12.752

Hill, 1923

%	t	d
98.591	30	0.70763
98.662	25	0.71309
98.736	20	0.71835
98.760	15	0.72404
98.836	10	0.72998
5.340	30	0.98505
6.027	25	0.98508
6.896	20	0.98478
7.913	15	0.98405
9.040	10	0.98219

(H_2O) (b.t. = 100) + Ethers

Lecat, 1949

	2nd Comp.		Az	
Name	Formula	b.t.	%	b.t.
Ethylpropylether	$C_5H_{12}O$	63.85	96	60.0
Ethyl tert. butyl ether	$C_6H_{14}O$	73	94	65.2
Ethyl tert. amyl ether	$C_7H_{16}O$	101	87	81.2
Propyl ether	$C_6H_{14}O$	90.1	90	78.1
Isopropyl ether	$C_6H_{14}O$	69.0	96.4	61.4
Butylether	$C_8H_{18}O$	142.9	62	93.5
Isobutylether	$C_8H_{18}O$	122.3	74	88.6
Amylether	$C_{10}H_{22}O$	187.5	35	98.4
Isoamylether	$C_{10}H_{22}O$	173.2	44	97.3
Methyl propyl-ether	$C_4H_{10}O$	38.95	98.45	38.2
Methyl tert. butyl ether	$C_5H_{12}O$	55	96	52.6
Methyl tert. amyl ether	$C_6H_{14}O$	86	93.3	73.8
Methyl allyl-ether	C_4H_8O	134.6	69.0	92.5

(H_2O) + Vinylbutyl ether ($C_6H_{12}O$)

Shostakovski and Prilezhaeva, 1947

mol %	b.t.
0.0	100
58.0	76.7 Az
100.0	93.8

(H_2O) + Ethylether hydrobromide ($C_4H_{11}OBr$)

Maass and Russell, 1918

%	f.t.	%	f.t.
100	-40.5	90.6	-50.0 (1+1)
99.1	-42.5	89.9	-54.5
97.6	-46.0	89.4	-50.0
96.2	-49.5	88.6	-53.2
95.2	-53.7	87.9	-56.5
94.6	-52.5	87.4	-55.5
93.5	-56.2	86.1	-59.6
92.9	-57.5	85.9	-61.5
92.3	-63.0	83.8	-72.5
91.1	-54.7		

(H_2O) + Methylal ($C_3H_8O_2$)

Bourgom, 1924

%	sat.t.	%	sat.t.
37.23	148.9	58.04	160.2
40.16	154.0	65.34	159.5
50.46	159.8	72.45	157.5
50.64	159.4	86.90	104.5
55.84	160.2	91.08	55.0
57.34	160.3		

t	P	t	P
sat.t. 55.8 %			
159	21	153.75	52
157.25	34	150	64

%	b.t.	%	b.t.
100.00	42.3	19.54	57
98.60	42.05	11.42	68
96.80	42.20	0.00	100
94.30	42.44		

%	f.t.	%	f.t.
0.00	0.00	26.52	- 8.60
5.26	-1.35	29.98	- 9.80
10.11	-2.77	33.60	-10.78
11.79	-3.31	36.23	-11.00
12.66	-3.54	42.98	"
15.73	-4.54	54.17	"
17.44	-4.98	68.12	"
19.15	-5.79	85.58	"
20.23	-6.10	95.72	"
20.60	-6.38	97.53	-12.80
23.12	-7.54	97.90	-15.50
25.20	-8.10	100.00	-104.8

Schwers, 1911

t	d	t	d
10.1435 %		19.9912 %	
17.5	0.99747	12.1	0.99832
27.4	0.99412	22.4	0.99362
33.0	0.99186		
30.0245 %		100 %	
19.9	0.99046	12.4	0.89496
25.7	0.98675	25.8	0.87729

Bourgom, 1924

%	d 16°	d 0°
100.00	0.86531	0.88546
99.04	-	0.88800
98.00	-	0.89054
97.30	-	0.89235
97.00	0.87310	0.89298
30.16	0.98521	0.99501
21.00	-	0.99747
6.20	0.99648	0.99928
0.00	0.99900	0.99907

d^{16}	L_1 (aq.)	32.3 %	0.98427
	L_2	95.7 %	0.87636

%	n H_α	n D	n H_β	n H_γ
	16°			
0.00	1.33144	1.33326	1.33734	1.34049
100.00	.35379	.35553	.35957	.36290
96.90	.35504	.35668	.36071	.36412
8.60	.33608	.33811	.34237	.34550
15.30	.34037	.34209	.34648	.34972
30.90	.34780	.34980	.35439	.35747

(H_2O) (b.t. = 100°) + Formals

Lecat, 1949

2nd Comp. Name	Formula	b.t.	Az %	Az b.t.
Methylal	$C_3H_8O_2$	42.3	98.7	42.08
Methylethyl formal	$C_4H_{10}O_2$	65.9	95.6	61.6
Ethylpropyl formal	$C_6H_{14}O_2$	113.7	80	86.3
Propyl formal	$C_7H_{16}O_2$	137.2	64	92.4
Isopropyl formal	$C_7H_{16}O_2$	129	79	80
Butyl formal	$C_9H_{20}O_2$	181.8	38	98.2
Isobutyl formal	$C_9H_{20}O_2$	163.8	51	96.8
Amyl formal	$C_{11}H_{24}O_2$	221.6	6.9	99.2
Isoamyl formal	$C_{11}H_{24}O_2$	211	22.2	99.0
Ethylal	$C_5H_{12}O_2$	87.95	90	75.55

(H_2O) (b.t. = 100°) + Acetals

Lecat, 1949

2nd Comp. Name	Formula	b.t.	Az %	Az b.t.
Acetal	$C_6H_{14}O_2$	103.6	85.5	82.5
Dimethylacetal	$C_4H_{10}O_2$	64.3	96.7	61.0
Dipropylacetal	$C_8H_{18}O_2$	147.7	63.4	94.7
Dibutylacetal	$C_{10}H_{22}O_2$	188.8	33.7	98.7
Diisobutylacetal	$C_{10}H_{22}O_2$	171.3	47.5	97.4
Diamylacetal	$C_{12}H_{26}O_2$	225.3	14.5	99.8
Diisoamylacetal	$C_{12}H_{26}O_2$	213.6	21.2	99.3

(H_2O) + Varia

Lecat, 1949

2nd Comp Name	Formula	b.t.	Az %	Az b.t.
Methylisobornyl ether	$C_{11}H_{20}O$	192.4	32	98.55
Ethylisobornyl ether	$C_{12}H_{22}O$	203.8	25	98.9
Methylterpinyl ether	$C_{11}H_{20}O$	216.2	17	99.3
Anisole	C_7H_8O	153.88	55	95.5
Phenetole	$C_8H_{10}O$	170.45	43	97.3
Propylphenylether	$C_9H_{12}O$	190.5	32	98.5
Veratrole	$C_8H_{10}O_2$	206.8	23.3	99.0
Resorcinol methyl ether	$C_8H_{10}O_2$	214.7	20	99.25
Resorcinol ethyl ether	$C_{10}H_{14}O_2$	235.4	9	99.7
Anethole	$C_{10}H_{12}O$	235.7	8	99.7
Diphenyl ether	$C_{12}H_{10}O$	259.0	3.25	99.95
Eugenol methyl ether	$C_{11}H_{14}O_2$	254.7	3.8	99.85
Isoeugenol methyl ether	$C_{11}H_{14}O_2$	270.5	1.2	99.95
Safrole	$C_{10}H_{10}O_2$	235.9	7.7	99.72
Isosafrole	$C_{10}H_{10}O_2$	252.0	4.0	99.8

(H_2O) + Acetal ($C_6H_{14}O_2$)

Beckmann, 1888

%	f.t.	%	f.t.
1.012	-0.170	8.586	-1.340
3.173	-0.500	11.75	-1.850
5.222	-0.820	13.35	-2.100

(H_2O) + Ethylene oxide (C_2H_4O)

Kaplan and Reformatskaia, 1937

%	p			p_2		
	5°	10°	20°	5°	10°	20°
5.97	111.3	132.9	190.8	111.1	132.7	190.4
9.43	171.4	203.3	292.5	171.1	202.9	291.8
12.72	216.1	260.5	372.2	215.7	260.0	371.2
16.09	266.5	336.7	473.0	266.0	336.0	471.7
25.57	406.1	477.4	672.4	405.4	476.3	670.2
30.82	543.5	553.4	-	544.5	552.0	-
42.21	586.4	619.1	-	584.9	617.0	-

Coles and Popper, 1950

t	%		mol %	
	L	V	L	V
		760 mm		
11.5	97.95	99.70	95.1	99.27
11.7	97.15	99.73	93.3	99.34
11.8	95.8	99.59	91.0	99.00
11.9	95.05	99.61	89.0	99.05
12.0	94.15	99.54	87.5	98.88
13.2	79.9	99.39	61.5	98.53
13.7	75.5	99.36	56.0	98.45
14.3	64.5	99.39	43.2	98.53
15.0	48	99.36	27.4	98.45
15.1	43	99.35	23.2	98.41
16.4	40	99.25	21.0	98.16
31.0	20.5	98.56	9.5	96.48
31.5	17.8	98.34	8.2	95.95
37.6	14.6	97.42	6.5	93.7
50.0	9.3	93.7	4.0	86.0
		2.3 atm.		
35.4	98.59	99.73	96.56	99.34
35.4	98.64	99.70	96.68	99.27
-	97.80	99.55	94.85	98.90
37.5	95.30	99.33	89.3	98.36
		4.4 atm.		
56.5	7.9	0.99	82.7	97.58

Maass and Boomer, 1922

%	f.t.	%	f.t.
0	0	51.0	+ 9.0
6.0	- 0.2	55.0	+ 8.4
11.4	+ 6.7	62:0	+ 7.5
16.4	+ 9.4	63.5	+ 7.2
21.3	+10.4	65.5	+ 6.9
24.9	+10.7	70.5	+ 6.0
28.0	+10.7	78.5	+ 4.3
34.0	+10.5	92.0	- 0.9
40.8	+10.0	100	-11.3
46.0	+ 9.5	(6+1)	

Mazzucchelli and Armenante, 1922

%	f.t.	mol %	f.t.
0	0	2.62	+ 0.7
2.03	-0.77	4.90	7.1
3.96	-1.43	9.61	11.4
4.06	-1.36	16.23	12.4
4.32	-1.80	23.52	10.5
4.76	-1.87	42.40	8.4
5.41	-2.23 E	58.92	6.4
		75.10	4.7
		(6+1)	

(H_2O) + Propylene oxide (C_3H_6O)

Lecat, 1949

%	b.t.
99.0	33.8 Az
100	34.1

(H_2O) + Tetrahydrofurane (C_4H_8O)

Wolf, 1943

%		σ
100	20°	27.64
90		28.10
75		28.65
50		29.17
25		30.64
10		34.11
0		72.60

Critchfield, Gibson and Hall, 1953

%	ε 20°	25°	30°	35°
0	80.37	78.48	76.75	74.95
10	73.73	71.76	70.15	68.68
20	66.46	64.60	63.02	61.64
30	58.42	56.59	55.24	53.88
40	49.77	48.22	46.91	45.65
50	41.21	39.96	38.77	37.75
60	33.04	31.97	31.04	30.24
70	25.45	24.62	24.08	23.39
80	18.75	18.25	17.77	17.38
90	12.90	12.59	12.36	12.05
95	10.24	9.97	9.74	9.58
100	7.58	7.39	7.25	7.16

%	n_D 20°	25°	30°	35°
0	1.3330	1.3324	1.3320	1.3314
10	.3433	.3427	.3419	.3412
20	.3537	.3527	.3519	.3510
30	.3637	.3622	.3611	.3600
40	.3724	.3711	.3695	.3683
50	.3801	.3788	.3769	.3753
60	.3872	.3854	.3837	.3819
70	.3934	.3915	.3896	.3878
80	.3987	.3967	.3949	.3938
90	.4033	.4011	.3989	.3967
95	.4050	.4028	.4008	.3986
100	.4068	.4045	.4022	.4000

(H_2O) + Methyl-2-furane (C_5H_6O)

Lecat, 1949

%	b.t.
-	58.2 Az
100	64.2

Smith and Laboute, 1952

t	mol % L	mol % V
96.8	below 6	9
90.2	" 6	25
89.6	" 6	25
83.8	" 6	39
79.2	" 6	51
76.7	" 6	55
73.1	" 6	63
69.9	" 6	67
60.8	" 6	80
59.0	" 6	84
57.3	86	86
58.8	99	91
60.0	99	94
62.7	100	100

(H_2O) + Varia

Lecat, 1949

2nd Comp. Name	Formula	b.t.	Az %	Az b.t.
Dioxane	$C_4H_8O_2$	101.3	81.9	87.5
Dioxolane-1,3	$C_3H_6O_2$	75	93.3	73
Trioxane sym.	$C_3H_6O_3$	114.5	70	91.4

Water + Dioxane ($C_4H_8O_2$)

Heterogeneous equilibria .

Makovietski, 1908

mol % L	mol % V	p	p_1
	50°		
100	100	120.5	0
95	80.84	142.1	27.24
90.04	71.51	153.8	43.83
80.05	63.21	164.7	60.59
70.07	59.34	168.6	68.55
60.46	56.95	169.6	73.03
55.08	56.00	169.6	74.64
49.94	55.08	169.6	76.14
39.94	53.66	167.9	77.80
30.03	51.54	165.5	80.21
20.08	47.87	159.0	82.90
15.03	44.08	152.7	85.40
10.06	38.24	142.6	88.05
7.52	33.84	134.2	88.77
5.00	27.48	124.0	89.92
0.00	0.00	91.9	91.91

Gadaskin and Makovietski, 1909

Az	87.7°	(767 mm)	48 mol %
-	50°	(170 mm)	56.3 mol %

Vierk, 1950

mol %	p	p_1	p_2
		25°	
4	30.0	23.1	6.9
11	37.5	21.0	16.5
23	43.9	19.3	24.6
28	45.5	18.4	27.1
55	47.7	16.7	31.0
76	47.5	14.7	32.8
90	45.2	10.9	34.3
95	42.7	6.6	36.1

Bacarella, Finch and Grunwald, 1956

%	p
25°	
50.00	41.97
70.50	46.18
100.00	36.18

Gillis and Delaunais, 1934

mol %	b.t.	mol %	b.t.
100	101.4	61.15	88.3
96.97	91.6	50.86	88.8
94.07	89.3	43.22	90.0
90.23	88.2	40.81	90.2
80.04	87.6	34.37	91.6
76.70	88.0	25.73	92.5
70.15	88.2	9.382	96.2

Schneider and Lynch, 1943

mol % L	mol % V	b.t.	mol % L	mol % V	b.t.
0.8	10.3	97.17	44.2	49.0	87.59
2.4	22.7	93.90	54.0	49.3	87.65
5.2	33.5	90.97	68.8	52.3	87.85
9.1	39.0	89.37	86.5	61.8	89.57
13.5	42.5	88.61	96.3	79.0	94.80
20.3	44.3	88.21	100	100	101.07
29.8	46.0	87.93			

Unkovskaya, 1911 and 1913

%	f.t.	%	f.t.
0.25	- 0.056	34.67	-10.820
0.35	- 0.079	47.23	-15.430
0.52	- 0.11	47.24	-15.435
0.68	- 0.15	61.55	- 4.195
1.01	- 0.2155	72.75	- 0.005
1.60	- 0.3455	81.98	+ 2.345
2.55	- 0.5535	98.22	+ 8.175
4.88	- 1.08	98.98	+ 9.219
6.99	- 1.59	99.42	+ 9.986
12.72	- 3.03	99.71	+10.595
20.96	- 5.534	100	+11.275

Gillis and Delaunais, 1934

mol %	f.t.	mol %	f.t.
100	11.6	28.85	- 2.51
86.75	7.81	24.36	- 4.35
81.1	5.80	17.47	- 9.28
76.87	5.27	13.49	-14.05
69.76	4.71	12.36	-13.72
65.39	4.07	9.677	-11.2
63.42	3.87	6.618	- 7.55
58.53	3.42	2.043	- 1.79
45.04	+1.95		

Properties of phases . Density .

Herz and Lorentz, 1929

%	d	%	d
17.5°			
0	0.9987	70	1.0436
30	1.0277	90	1.0391
50	1.0400	100	1.0357

%	d 20°	d 40°	d 60°	d 80°
10	1.0098	1.0023	0.9925	0.9811
40	.0336	.0206	1.0060	.9900
50	.0386	.0238	.0080	.9916
60	.0413	.0248	.0078	.9899
70	.0413	.0242	.0060	.9869
90	.0375	.0176	0.9956	.9748
100	.0330	.0111	.9895	.9674

Gillis and Delaunais, 1934

mol %	d	mol %	d
20°			
100	1.03215	50.86	1.03614
96.97	.03344	43.22	.03601
94.07	.03478	40.81	.03140
90.23	.03601	34.37	.02685
80.04	.03958	25.73	.02032
66.47	.04330	9.382	.00556
61.15	.03918		

Geddes, 1933

%	d 20°	d 25°	d 30°
100	1.0345	1.0286	1.0231
99.015	.0332	.0274	.0217
97.921	.0334	.0280	.0215
94.982	.0346	.0290	.0236
89.04	.0369	.0316	.0244
78.67	.0400	.0350	.0290
55.74	.0384	.0345	.0282
43.06	.0331	.0295	.0260
24.09	.0194	.0172	.0145
11.45	.0087	.0069	.0049

%	d 40°	d 60°	d 80°
100	1.0119	0.9883	0.9650
99.015	.0106	.9881	.9646
97.921	.0107	.9884	.9654
94.982	.0126	.9904	.9676
89.04	.0160	.9946	.9723
78.67	.0217	1.0007	.9792
55.74	.0224	.0051	.9862
43.06	.0188	.0036	.9866
24.09	.0089	0.9962	.9822
11.45	.0003	.9952	.9778

Harned and Morrisson, 1936 and
Harned and Calmon, 1938

t	d 20 %	45 %	70 %	82 %
0	1.0271	1.0484	1.0619	-
5	.0245	.0450	.0570	1.0540
10	.0219	.0419	.0522	.0488
15	.0193	.0386	.0474	.0436
20	.0167	.0353	.0426	.0387
25	.0141	.0319	.0387	.0338
30	.0115	.0282	.0332	.0288
35	.0090	.0246	.0285	.0236
40	.0063	.0210	.0239	.0183
45	.0038	.0175	.0194	.0130
50	.0014	.0139	.0148	-

Wang, 1940

mol %	d 15°	30°
100	1.03890	1.02207
92.986	1.03915	1.02246
90.531	1.03934	1.02273
100	1.03885	1.02202
98.995	-	1.02204
98.499	1.03886	1.02205
97.998	1.03886	1.02207
97.483	1.03887	1.02210
96.481	1.03887	1.02214

Harmes, 1943

%	d 15°	30°
100	1.03901	1:02210
89.965	1.03945	1.02280
84.846	1.03993	1.02342
69.404	1.04174	1.02585
54.839	1.04364	1.02855
39.851	1.04534	1.03132
24.937	1.04464	1.03215
9.551	1.03128	1.02220
4.926	1.01855	1.01193
0.000	0.999096	0.995649

Tommila and Koivisto, 1948

%	d 15°	20°	25°	40°	50°
0	0.99913	0.99823	0.99707	0.99224	0.98807
2.167	-	1.00018	.99893	.99381	.98949
4.727	-	.00250	1.00111	.99564	.99115
9.955	1.00876	.00724	.00561	.99943	.99462
19.695	.01821	.01607	.01385	1.00633	1.00067
29.365	.02681	.02412	.02139	.01250	.00600
39.000	.03422	.03100	.02778	.01748	.01032
48.381	.03987	.03623	.03262	.02119	.01327
57.871	.04385	.03979	.03580	.02321	.01463
71.90	.04581	.04122	.03670	.02276	.01327
80.36	.04510	.04018	.03532	.02053	.01045
89.63	.04276	.03753	.03233	.01639	.00573
93.59	.04133	.03594	.03047	.01420	.00315
96.77	.04010	.03453	.02905	.01236	.00110
98.35	-	.03401	.02856	.01157	.00029
100	1.03923	.03365	.02800	.01095	0.99961

Pesce and Lago, 1944

mol %	d	mol %	d
	25°		
0.00	0.99707	18.23	1.03420
2.78	1.00758	34.33	1.03672
6.35	1.01806	55.44	1.03380
15.99	1.03260	100.00	1.02802

Griffiths, 1952

%	d	%	d
	25°		
0.00	0.99706	66.42	1.03698
11.21	1.00602	69.82	1.03700
20.10	1.01365	80.02	1.03492
30.07	1.02103	90.72	1.02940
39.68	1.02700	95.28	1.02844
50.37	1.03258	99.06	1.02816
59.96	1.03607	100.00	1.02808

Kovalenko, Tifonov and Tissen, 1956

mol %	d 25°	40°
0	0.9965	0.9915
20	1.0343	1.0232
40	1.0355	1.0233
60	1.0314	1.0176
80	1.0286	1.0137
100	1.0265	1.0101

Viscosity and surface tension .

Herz and Lorentz, 1929

%	η 20°	40°	60°	80°
10	1206	778	539	404
40	1949	1206	796	569
50	2192	1339	875	621
60	2217	1368	909	649
70	2130	1361	912	658
90	1148 ?	1063	763	582
100	1255	917	685	539

Geddes, 1933

η 20°	25°	30°	40°	60°	80°
		100 %			
1307.6	1196.4	1099.0	941.6	714.6	562.5
1307.9	1196.6	1099.2	941.4	714.9	562.4
1307.1	1197.6	1100.3	941.5	714.5	562.9
1307.2	1196.9	1100.5	941.0	714.9	562.6
		99.025 %			
1305.5	1196.2	1097.8	939.1	712.1	561.8
1306.0	1195.9	1098.4	939.1	711.6	561.5
		97.921 %			
1320.0	1206.7	1107.7	944.3	713.8	561.9
1319.9	1205.7	1106.8	944.0	713.5	561.3
		94.982 %			
1399.2	1274.5	1162.7	983.0	733.8	570.6
1399.8	1273.9	1162.7	983,5	734.1	570.7
		89.04 %			
1621.5	1457.8	1321.5	1099.8	800.7	607.9
1619.1	1458.1	1321.2	1099.7	799.6	607.5
		78.67 %			
1981.6	1760.6	1574.3	1279.0	895.6	661.1
1981.0	1760.9	1573.9	1278.7	895.1	660.8
		55.74 %			
2263.7	1976.0	1738.3	1377.4	924.6	663.2
2263.2	1974.8	1738.1	1376.1	924.2	662.4
		43.06 %			
2059.9	1796.2	1579.7	1250.5	843.3	610.0
2059.8	1796.2	1579.0	1250.6	843.0	609.9
		24.09 %			
1576.8	1380.2	1221.3	975.6	671.3	494.9
1576.2	1380.7	1221.1	975.5	670.1	494.9
		11.45 %			
1257.9	1109.0	985.5	797.3	558.4	418.9
1258.5	1108.4	985.3	797.6	558.7	419.1
		0 %			
1004.4	892.8	798.3	654.7	468.1	356.6
1004.8	892.4	798.4	655.0	468.2	357.0

Kovalenko, Tifonov and Tissen, 1956

mol %	η 25°	40°
0	894	656
20	1923	1327
40	1784	1273
60	1453	1087
80	1262	1957
100	1181	992

Herz and Lorentz, 1929

%	σ 20°	40°	60°	80°
10	57.77	53.83	49.01	45.92
40	39.67	37.41	35.03	32.97
50	38.36	36.64	33.95	32.46
60	35.15	33.13	31.07	29.56
70	-	32.52	30.44	28.33
90	33.99	30.42	28.70	25.57

Wolf, 1943 and 1948

%	σ	%	σ
	20°		
100	35.42	25	38.62
90	33.85	10	45.94
75	34.60	0	72.60
50	35.65		

Kovalenko, Tifonov and Tissen, 1956

mol %	σ 25°	40°
0	71.97	69.48
20	40.37	37.97
40	36.81	35.06
60	34.85	33.15
80	33.86	31.95
100	33.65	31.57

Optical and electrical properties .

Unkovskaya, 1911 and 1913

mol %	n_D	mol %	n_D
	16°		
100	1.42422	60.463	1.41554
95.006	1.42317	57.376	1.41454
90.039	1.42227	55.080	1.41370
85.023	1.42137	49.938	1.41167
80.048	1.42042	45.035	1.40949.5
75.132	1.41937	39.936	1.40684
70.069	1.41817.5	35.043	1.40364.5
65.030	1.41691.5		

Herz and Lorentz, 1929

%	n_D	%	n_D
	17.5°		
0	1.33318	70	1.40122
30	1.36453	90	1.41518
50	1.38407	100	1.42225

Gillis and Delaunais, 1934

mol %	n_D	mol %	n_D
	20°		
100	1.4220	50.86	1.3824
96.97	1.4200	43.22	1.3750
94.07	1.4180	40.81	1.3748
90.23	1.4150	34.37	1.3674
80.04	1.4073	25.73	1.3580
66.47	1.3952	9.382	1.3420
61.15	1.3920		

Lynch, 1942

%	n_D.	%	n_D
	25°		
0.000	1.3326	40.03	1.3715
3.211	1.3355	41.25	1.3728
9.241	1.3412	50.68	1.3813
10.80	1.3428	61.74	1.3912
16.92	1.3487	71.51	1.3993
19.72	1.3512	78.91	1.4050
26.41	1.3583	89.63	1.4127
29.95	1.3617	100.00	1.4197

Pesce and Lago, 1944

mol %	n 6678.1 Å	n 5875.6 Å	n 5460.8 Å
	25°		
0.00	-	1.33255	-
2.78	1.34231	1.34455	1.34605
6.35	1.35497	1.35721	1.35871
15.99	1.37944	1.37977	1.38129
18.23	1.38101	1.38336	1.38495
34.33	1.39755	1.40000	1.40161
55.44	1.40788	1.41026	1.41191
100.00	1.41753	1.41994	1.42168
	5015.7 Å	4471.5 Å	4358.3 Å
2.78	1.34792	1.35126	1.35197
6.35	-	-	1.36476
15.99	1.38340	-	1.38786
18.23	1.38748	1.39060	1.39139
34.33	1.40387	1.40748	1.40853
55.44	1.41417	1.41801	1.42019
100	1.42399	1.42802	1.42897

Vierk, 1950

mol %	n_D	mol %	n_D
	25°		
0.0	1.3325	50.4	1.4087
0.6	1.3356	53.7	1.4092
1.4	1.3396	54.7	1.4100
3.5	1.3479	96.0	1.4188
10.8	1.3689	100.0	1.4201
33.2	1.3987		

Kovalenko, Tifonov and Tissen, 1956

mol %	n_D 25°	n_D 40°
0	1.3325	1.3309
20	1.3869	1.3820
40	1.4035	1.3978
60	1.4127	1.4050
80	1.4173	1.4095
100	1.4204	1.4126

Landsberg, 1938

%	w.l.	maximum of absorption spectrum (cm-1)
0	4200	3460
80	2200	3520
90	2000	3520
95	1600	3510-3590
96.5	1460	3510-3600
98	1350	3520-3600
99	1350	3520-3600
100	-	3512-3596

Harned and Morrison, 1936

t	ε 20 %	ε 45 %	ε 70 %
0	69.16	44.28	20.37
5	67.39	43.05	19.81
10	65.68	41.86	19.25
15	64.01	40.70	18.72
20	62.38	39.57	18.20
25	60.79	38.48	17.69
30	59.94	37.41	17.20
35	57.73	36.37	16.72
40	56.26	35.37	16.20
45	54.83	34.39	15.80
50	53.43	33.43	15.37

Åkerlöf and Short, 1936

t	ε 0 %	ε 10 %	ε 20 %	ε 30 %
0	88.33	78.86	69.16	59.34
10	84.25	75.06	65.68	56.24
20	80.37	71.43	62.38	53.30
30	76.73	67.98	59.24	50.52
40	73.12	64.70	56.26	47.88
50	69.85	61.57	53.43	45.38
60	66.92	68.60	50.75	43.01
70	63.50	55.77	48.20	40.76
80	60.58	53.07	45.77	38.63

t	ε 40 %	ε 50 %	ε 60 %	ε 70 %
0	49.37	39.50	29.84	20.37
10	46.71	37.31	28.17	19.25
20	44.19	35.25	26.60	18.20
30	41.80	33.30	25.12	17.20
40	39.54	31.46	23.72	16.26
50	37.41	29.72	22.40	15.37
60	35.39	28.08	21.15	14.52
70	33.48	26.53	19.97	13.73
80	31.67	25.05	18.86	12.97

t	ε 80 %	ε 90 %	ε 95 %	ε 98 %	ε 100 %
0	12.19	6.16	3.91	2.73	2.109
10	11.58	5.93	3.82	2.70	2.104
20	10.99	5.71	3.74	2.68	2.102
30	10.44	5.50	3.65	2.65	2.100
40	9.91	5.30	3.57	2.62	2.098
50	9.41	5.10	3.49	2.60	2.096
60	8.93	4.91	3.41	2.57	2.094
70	8.43	4.73	3.33	2.55	2.092
80	8.05	4.56	3.25	2.52	2.090

Hackel and Wien, 1937 (fig.)

%	ε	%	ε
		20°	
0	80	60	27
20	60	80	12
40	42	100	1

Wang, 1940

mol %	ε 15°	ε 30°
100	2.224	2.200
92.986	2.691	2.626
90.531	2.896	2.817
100	2.232	2.203
98.995	-	2.255
98.499	2.318	2.283
97.998	2.350	2.311
97.483	2.379	2.335
96.481	2.445	2.398

Hasted, Haggis and Hutton, 1951

%	ε	%	ε
25°	w.l. = 1.262 cm.		
14.2	24.3	33.2	15.0
24.9	18.6	45.2	11.3
25°	w.l. = 9.22 cm.		
14.2	67.2	33.2	45.3
24.9	56.5	45.2	36.0

t	ε	t	ε
33.2 %	w.l. = 1.262 cm.		
25	15.0	45	18.3
35	18.3		
33.2 %	w.l. = 9.22 cm.		
25	45.3	55	40.41
35	44.75	65	40.89
45	42.21		

Cook, 1951 (fig.)

mol %	ε	mol %	ε
		18°	
100	2.26	75	4.7
95	2.6	70	5.3
90	3	65	6.3
85	3.5	60	7.5
80	4	55	8.6

t	ε	t	ε
	83.6 mol%		
15	3.65	35	3.43
25	3.53	50	3.35

Critchfield, Gibson and Hall, 1953

%	ε 20°	25°	30°	35°
0	80.38	78.48	76.72	74.97
10	72.02	70.38	68.74	67.10
20	63.50	61.86	60.38	58.96
30	54.81	53.28	51.91	50.60
40	45.96	44.54	43.33	42.24
50	36.89	35.85	34.81	33.88
60	28.09	27.21	26.45	25.74
70	19.73	19.07	18.58	18.07
80	12.19	11.86	11.58	11.26
90	6.23	6.07	5.96	5.85
95	3.99	3.89	3.83	3.76
100	2.24	2.21	2.20	2.19

Heat constants .

Stallard and Amis, 1952

mol %	%	Q vap specif.	Q vap molar.
0.00	0.00	2403.0	10358
1.53	7.05	1608.6	7340
1.53	7.05	1629.1	-
1.62	7.43	1618.8	7407
3.79	16.14	1276.7	6317
4.34	18.16	1201.8	6049
4.44	18.50	1220.5	6176
6.98	26.84	1018.8	5631
7.25	27.67	1018.6	5636
11.40	38.62	884.4	5509
11.64	39.18	880.8	5523
16.67	49.45	783.1	5559
29.27	66.93	736.3	6783
40.64	77.00	700.1	7768
69.37	91.72	667.5	6236

Vierk, 1950

mol %	Q mix	mol %	Q mix
	20°		
5.0	- 92.48	56.6	+ 55.15
9.6	-130.00	61.4	+ 75.09
13.7	-139.95	67.2	+ 95.47
17.5	-136.77	74.1	+112.34
20.9	-127.55	78.2	+116.95
38.4	- 42.87	82.7	+116.28
41.7	- 22.56	87.8	+105.53
45.7	- 0.25	93.5	+ 73.26
50.6	+ 26.78		

Feodosyev, Osipov and Morozova, 1954

mol %	Q mix	mol %	Q mix
0	0	60	+ 69.6
5	- 80.6	70	+ 99.6
10	-118.1	80	+112.0
20	-121.4	90	+ 94.8
40	- 16.5	100	0

Water + Paraldehyde ($C_6H_{12}O_3$)

Lecat, 1949

%	b.t.
68	93.0 Az
100	124.35

Pascal and Dupuy, 1920

%	sat.t.	%	sat.t.
5.80	75.0	13.25	8.5
6.00	68.0	96.50	85.0
7.45	42.5	97.55	63.0
7.65	40.0	98.25	46.0
9.10	27.0	98.70	28.5
11.20	17.0	98.95	19.0
11.90	13.5	99.05	14.5
12.30	12.0	99.20	6.5
12.45	11.5		

%	f.t.	
9.37	- 1.53	
11.80	- 1.71	E
13.10	- 1.99	
12.27	+ 5.0	$C_6H_{12}O_3$
12.45	6.0	
12.70	9.5	
98.85	9.78	
99.12	10.02	$L_1 + L_2 + C$
99.365	10.28	
100	12.4	

%	d 12°	20°	40°
100	1.00058	0.9923	0.9673
L_1	1.00388	0.9955	0.9696
L_2	1.01158	1.0084	1.0045

Strada and Macri, 1934

%	d	%	d
	20°		
0	0.9982	6	1.0043
2	1.0012	8	1.0058
4	1.0026	10	1.0076

%	n_D
	20°
2	1.33562
4	1.33705
6	1.33905
8	1.34105
10	1.34302

Water + Cineole ($C_{10}H_{18}O$)

Lecat, 1949

%	b.t.
43	97.65 Az
100	176.35

Water + Estragol ($C_9H_{10}O$)

Lecat, 1949

%	b.t.
18	99.3 Az
100	215.6

Water + Valerolactone ($C_5H_8O_2$)

Kurnakov, Voskresenskaya, Goltzman and al., 1938

mol %	d 25°	d 50°
100	1.0503	1.0286
70	1.0504	1.0286
50	1.0502	1.0285
30	1.0374	1.0126
10	1.0101	0.9972
0	0.9974	0.9890

Kurnakov, Voskresenskaya, Goltzman and al., 1938

mol %	η 25°	η 50°
100	1815	1255
70	1899	1328
50	2080	1367
30	2167	1406
10	1764	1012
0	900	569

Berkeley and Hartley, 1919

%	π 0°	P 0°	π 30°	P 30°
0.00	50.7	68	44.5	95
18.70	40.96	30	38.6	32
35.35	33.27	81	33.26	82
42.30	30.27	113	31.04	114
47.43	28.69	141	29.71	141

Water + Formaldehyde (CH_2O)

Auerbach, 1905

%	p_2
18°	
7.8	0.17
15.0	0.30
23.7	0.30
27.8	0.34
30.9	0.40

(sic.)

Blair and Ledbury, 1925

c	p	c	p_1
20°			
9.52	0.340	31.1	0.795
19.7	0.575	40.2	1.025
29.5	0.780		
0°			
8.09	0.056	20.63	0.118
15.68	0.102	31.25	0.157

Ledbury and Blair, 1927

c	p_2	c	p_2
0°			
0	0.000	20.5	0.119
8.5	0.053	31.5	0.153
15.7	0.101		
20°			
9	0.375	31	0.797
19	0.59	40.5	1.01
29	0.785		
35°			
1.09	0.166	20.8	1.94
5.15	0.695	31.0	2.48
11.8	1.29	39.5	2.81
18.6	1.80		
45°			
10.8	2.30	28.75	4.72
20.4	3.79	39.2	5.60

Auerbach, 1905

% L	% V	P_2
	100°	
2.35	2.0	9.2
3.05	2.8	13.1
5.05	4.4	20.6
5.85	4.9	23.1
8.2	6.2	29.1
9.6	7.2	34.4
10.0	8.4	40.1
15.2	11.5	56.1
16.8	13.1	64.3
19.6	15.6	78.4
21:6	17.6	89.2
24.7	20.3	104.3
28.4	21.3	110.2
29.3	20.1	103.2
32.2	18.5	93.7
32.7	19.2	98.4
34.4	19.6	100.3
36.4	22.2	114.6
36.1	22.4	116.3
40.9	23.2	121.1

Farberov and Speranskaya, 1955

wt % L	wt % V	mol % L	mol % V
	at b.t. (4 atm.)		
0.46	1.68	0.27	1.00
4.77	9.01	3.00	5.60
7.52	15.54	4.80	10.00
15.48	24.70	10.00	17.00
17.20	27.26	11.50	19.00
19.50	28.93	13.00	20.20
23.82	33.95	16.1	24.00
30.50	37.60	21.5	27.90
33.91	38.16	24.0	28.00
38.75	44.4	28.0	33.00

Green and Vener, 1955

% L	% V	b.t.
5.35	6.90	99.62
5.35	6.60	99.72
14.80	16.10	99.17
14.75	15.40	99.22
18.35	18.30	99.10
25.85	22.90	99.12
35.85	28.20	99.10
45.80	34.60	99.17
46.30	34.30	99.21
53.00	40.20	99.67

Auerbach, 1905

vol %	b.t.	vol %	b.t.
	763 mm		
3.00	100.0	30.16	99.1
9.13	99.6	36.22	99.1
20.39	99.3	41.87	99.1
23.46	99.2	50.00	99.0

Piret and Hall, 1948

%	b.t. 740 mm	b.t. 760 mm
0.00	99.3	100.0
2.57	98.95	99.75
4.46	98.85	99.60
7.98	98.65	99.35
12.62	98.45	99.10
15.5	98.35	99.00
19.8	98.35	98.95
22.65	98.35	98.95
25.35	98.35	98.95
31.1	98.35	98.95
41.5	98.40	99.00
43.8	98.45	99.05
45.8	98.55	99.15
47.0	98.60	99.20
47.2	98.65	99.25
49.3	98.80	99.40
51.5	99.10	99.70
53.1	99.40	100.00

Blair and Taylor, 1926

b.t.	% (V)	b.t.	% (V)
100	0	98.75	30
99.6	5	98.8	35
99.2	10	98.85	40
99.0	15	99.2	45
98.85	20	100	50
98.8	25		

Lüttke, 1893

%	d	%	d
	18.5°		
0	0.9985	21	1.052
1	1.002	23	1.058
2	1.004	25	1.064
5	1.015	27	1.069
8	1.020	30	1.075
10	1.025	33	1.078
12	1.029	35	1.081
15	1.036	38	1.085
20	1.049	40	1.087

Davis, 1897

%	d	%	d
	15.56°		
0	0.999	24	1.063
2	1.004	28	.075
4	.009	30	.082
6	.014	31	.086
8	.019	32	.091
10	.024	34	.099
12	.029	36	.108
15	.037	38	.116
20	.052	39	.120

Auerbach, 1905

%	d	%	d
	18°		
2.23	1.0054	23.73	1.0719
4.60	.0126	27.80	.0853
10.74	.0311	34.11	.1057
13.59	.0410	37.53	.1158
18.82	.0568		

Natta and Baccaredda, 1933

%	d	%	d
	18°		
0	0.9986	30	1.0910
5	1.0141	35	.1066
10	.0299	40	.1220
15	.0449	45	.1382
20	.0600	50	.1570
25	.0757		

Thomas and Perman, 1934

%	d	%	d
	30°		
7.95	1.020	29.0	1.073
11.5	.028	33.1	.078
16.4	.040	40.2	.087
22.1	.055		

%	π	%	π
7.95	41.6	29.0	34.0
11.5	40.6	33.1	32.6
16.4	37.9	40.2	30.3
22.1	36.1		

Natta and Baccaredda, 1933

%	n_D	%	n_D
	18°		
0	1.33307	30	1.36760
5	1.33881	35	1.37352
10	1.34456	40	1.37950
15	1.35044	45	1.38578
20	1.35598	50	1.39250
25	1.36178		

Reicher and Jansen, 1912

%	n_D	%	n_D
	15°		
0	1.3334	13	1.3489
1	1.3345	14	1.3501
2	1.3358	15	1.3513
3	1:3369	16	1.3525
4	1.3382	17	1.3538
5	1.3394	18	1.3549
6	1.3406	19	1.3560
7	1.3418	20	1.3572
8	1.3430	21	1.3583
9	1.3442	22	1.3597
10	1.3454	23	1.3608
11	1.3467	24	1.3619
12	1.3478		

Wagner, 1920

c	n_D	c	n_D
	17.5°		
0.000	1.33320	13.597	1.34947
0.313	.33358	13.916	.34984
0.626	.33397	14.235	.35021
0.939	.33435	14.554	.35058
1.252	.33474	14.873	.35095
1.565	.33513	15.192	.35132
1.879	.33551	15.511	.35169
2.193	.33590	15.830	.35205
2.507	.33628	16.150	.35242
2.821	.33667	16.470	.35279
3.135	.33705	16.790	.35316
3.450	.33743	17.110	.35352
3.765	.33781	17.430	.35388
4.080	.33820	17.751	.35425
4.395	.33858	18.072	.35461
4.710	.33896	18.393	.35497
5.026	.33934	18.714	.35533
5.342	.33972	19.035	.35569
5.658	.34010	19.357	.35606
5.974	.34048	19.679	.35642
6.290	.34086	20.001	.35678
6.607	.34124	20.323	.35714
6.924	.34162	20.645	.35750
7.241	.34199	20.968	.35786
7.558	.34237	21.291	.35822
7.875	.34275	21.614	.35858
8.192	.34313	21.937	.35894
8.509	.34350	22.260	.35930
8.826	.34388	22.584	.35966
9.143	.34426	22.908	.36002
9.460	.34463	23.232	.36038
9.778	.34500	23.556	.36074
10.096	.34537	23.870	.36109
10.414	.34575	24.195	.36145
10.732	.34612	24.520	:36181
11.050	.34650	24.845	.36217
11.368	.34687	25.170	.36252
11.686	.34724	25.495	.36287
12.004	.34761	25.820	.36323
12.322	.34798	26.145	.36359
12.640	.34836	26.472	.36394
12.959	.34873	26.798	.36429
13.278	.34910		

Water + Acetaldehyde (C_2H_4O)

Morozov, Kagan and Grossblyat, 1934

mol %	p_2	p_1	p
	10°		
0	-	9.21	9.21
4.9	74.5	10.0	84.5
8.2	113.3	14.3	127.6
9.5	128.95	14.46	143.41
10.5	139.8	15.65	155.45
27.05	268.3	18.2	286.5
46.6	363.4	18.2	381.6
48.8	373.2	17.04	390.24
100	503.4	-	503.4
	20°		
0	-	17.53	17.53
5.4	125.2	18.3	143.5
8.8	206.0	20.9	226.9
12.9	295.2	22.2	317.4
19.0	406.8	23.9	430.7
21.8	432.62	24.17	456.7
37.0	-	-	542.3
100	721.0	-	721.0

Dobrinskaya, Markovich and Neiman, 1953

wt %	mol %	p		
		24.77°	12.04°	0.0°
11.4	5.0	189.5	89	40
27.6	13.4	436	219	90
36.2	18.9	564	312	139
50.2	29.3	672	383	191.5
76.7	57.4	769	470	277
81.5	64.3	789	483	282
86.5	72.7	791	488	292
96.0	90.6	841	524	315
100.0	100.0	761(19.8°)	562	346.5

wt %	mol %	p	p_2
	24.77°		
2.6	1.05	772.5	35.5
4.85	2.0	766.2	64.8
8.2	2.5	773.5	113.1
20.4	9.5	774.7	312.0
	0°		
33.6	7.6	-	54.6
50.3	13.0	-	90.5
63.1	18.3	-	129.1
71.5	50.8	-	351.0

Pascal, Dupuy, Ero and Garnier, 1921

b.t.	%		p
	L	V	
20.8	100	-	762
23.5	89.4	-	"
24.0	86	-	"
24.5	80.7	-	"
24.9	75.0	-	"
25.0	73.6	-	"
25.4	70	-	"
25.9	66.7	-	"
26.4	63.2	-	"
26.5	62.5	-	"
26.8	60	-	"
27.2	57.2	-	"
27.8	54.3	-	"
28.5	50.0	-	765
29.0	50.0	-	762
29.9	47.0	-	762
32.0	40	-	762
33.0	35.3	-	760
34.5	35.0	-	765
36.0	-	96.6	761
37.0	30.07	-	750
40.5	25.0	-	765
41.0	-	95.3	761
45.0	20.0	-	750
52.5	15.0	-	765
53.5	-	92.38	761
58.0	12.47	-	750
62.0	10.3	-	760
63.0	-	87.9	761
67.5	-	80.9	"
75.0	-	77.5	"
77.5	3.55	77.32	"
86.5	2.04	67.92	"
93.0	1.05	48.07	"
97.0	0.2	22.56	"

Show, 1925

%	f.t.	%	f.t.
0	0	18.6	-11.2
4.8	-2.5	22.5	-14.0
8.8	-5.0	31.0	-23.0
13.5	-7.8		

Van Aubel, 1893

%	t	d
0.00	17.4	0.9996
13.68	17.8	1.0028
26.32	17.5	1.0043
54.25	17.1	0.9761
76.27	16.5	0.9154
85.81	16.8	0.8775
100.00	17.2	0.8122

Vaubel, 1899

%	d	%	d
	18°		
0	0.9996	30	1.0060
10	1.002	40	1.0040
20	1.0055		

Pascal and Dupuy, 1920

%	d 4°	d 20°
5.4	1.0038	0.9996
7.4	1.0060	1.0006
9.9	1.0093	1.0021
17.2	-	1.0043
22.2	-	1.0038
22.6	1.0214	-
26.5	-	1.0026
27.5	1.0251	-
30.2	1.0262	-
39.2	-	0.9846
42.1	-	0.9791
43.9	1.0224	-
46.0	1.0192	-
60.1	0.9869	-
60.4	-	0.9240
86.7	0.8430	-
90.2	-	0.7892
91.0	0.8080	0.7865
91.9	0.8014	-
95.5	-	0.7831

Homfray, 1925

%	t	d
0.00	19.0	0.9984
15.86	19.0	1.0028
44.90	19.4	0.9857
55.03	18.4	0.9725
60.18	19.0	0.9586
70.24	18.6	0.9236
70.90	18.4	0.9170
85.47	18.6	0.8544
100.00	19.0	0.7830

Strada and Macri, 1934

%	d	%	d
	20°		
0	0.9982	60	0.9250
10	1.0020	70	.8681
20	1.0040	80	.8098
30	1.0000	90	.7870
40	0.9850	100	.7796
50	0.9600		

Kurnakov, Voskresenskaya, Goltzman and al., 1938

mol %	d	mol %	d
	0°		
100	0.8074	30	1.0145
90	0.8376	20	1.0098
70	0.9051	10	1.0051
50	0.9671	0	0.9998
40	0.9901		

Kurnakov, Voskresenskaya, Goltzman and al., 1938

mol %	η	mol %	η
	0°		
100	273	30	7964
90	1064	20	7308
70	2818	10	4683
50	6146	0	1801
40	7243		

Van Aubel, 1893

%	t	n_D
0.00	18.9	1.3329
13.68	18.8	1.3451
26.32	18.8	1.3556
54.25	18.7	1.3690
76.27	18.8	1.3647
85.81	18.5	1.3584
100.00	18.6	1.3441

Homfray, 1925

%	t	n_D
0.00	19.0	1.3333
15.86	19.0	1.3475
44.90	19.4	1.3647
55.03	18.4	1.3678
60.18	19.0	1.3683
70.24	18.6	1.3655
70.90	18.4	1.3634
85.47	18.6	1.3524
100.00	19.0	1.3337

Strada and Macri, 1934

%	n_D	%	n_D
	20°		
0	1.33300	60	1.36400
10	.34260	70	.36000
20	.35050	80	.35398
30	.35480	90	.34597
40	.36300	100	.33315
50	.36495		

Lauder, 1948

mol %	n_D	mol %	n_D
	0°		
0.0	1.33440	63	1.35721
11.5	1.35700	72	1.35113
32.2	1.37268	82.6	1.34626
39.2	1.36796	83.3	1.34540
45.5	1.36536	100	1.33673
55	1.35977		
	13.5°		
45.5	1.35481	62.2	1.35123

Dobrinskaya, Markovich and Neiman, 1953

%	Q vap	%	Q vap
10	10100	50	6600
20	8950	90	6270
30	8050		

Water + Butyraldehyde (C_4H_8O)

Lecat, 1949

%	b.t.
0	100
94	68 Az
100	75.7

Water + Isovaleraldehyde ($C_5H_{10}O$)

Lecat, 1949

%	b.t.
0	100
88	77 Az
100	92.5

Water + Acrolein (C_3H_4O)

Moureu, Boutaric and Dufraisse, 1920

t	% L_1	% L_2
- 8	96.02	-
0	95.33	20.64
+10	94.40	20.80
+20	93.23	21.05
+30	91.86	21.33
+40	90.00	21.84
+50	87.62	22.96
+53	86.75	23.84

Boutaric, 1920

%	sat.t.	%	sat.t.
	L_1		
96.02	- 8.0	93.09	21.5
95.79	- 2.0	92.67	23
95.31	+ 2.5	92.34	26.5
94.82	3.5	91.72	31.0
94.68	6.75	90.87	34.75
94.35	10.5	88.96	45
94.02	13.0	86.75	53
93.02	21.0	85.20	55
	L_2		
20.64	0	22.69	45
20.84	12.5	23.49	53
21.82	33	23.84	54

Boutaric and Corbert, 1927

%	sat.t.	%	sat.t.
95	0	58.7	87.5
91.5	32.5	56.2	88
89.0	44.4	55.5	88
87.8	50	46.9	85.5
86.8	53	39.9	77.8
79.3	74.5	30.3	62
69.9	82	25.1	48
64.5	84	20	0

C.S.T. = 88°

Water + Oenanthole ($C_7H_{14}O$)

Noorduyn, 1919 (fig.)

%	mol %	f.t.	
100	100	-42	
96.5	-	-42.5	
-	90	+11.4	(1+1)
-	0.019	+11.4	
-	0.016	- 0.058	
0	0	0	

Water + o-Phthalic aldehyde ($C_8H_6O_2$)

Seekles, 1923

mol %	f.t.	mol %	f.t.
100.00	53.2	0.693	45.4
63.97	46.9	0.68	35
57.05	45.6	0.662	25
54.10	45.4	0.637	15
52.81	45.2	0.64	-
51.45	45.0	0.552	- 0.55
50.00	45.3	0.463	- 0.44
48.45	45.2	0.374	- 0.38
47.03	45.4	0.285	- 0.30
45.68	45.4	0.089	- 0.09
38.73	45.4	0.036	- 0.05
33.33	45.4	0.000	0.00

Water + Methyl α -d-Glucoside ($C_7H_{14}O_6$)

Berkeley and Hartley, 1926

%	P osmotic	%	P osmotic
	0°		
18.62	29.87	35.42	80.78
25.80	47.72	38.96	95.97
31.00	63.84	43.08	117.19

Wise and Nicholson, 1955

%	f.t.	%	f.t.
70.90	78.0	59.42	49.0
68.78	73.2	57.31	43.2
66.70	67.8	55.33	37.2
66.08	66.2	54.48	33.9
65.25	64.2	53.42	31.8
64.71	62.7	52.41	27.3
64.02	60.6	52.36	26.6
62.40	57.3	51.59	25.5
61.48	54.4	51.20	22.5
60.79	51.8	49.38	17.8
59.78	49.6		

Water + Furfural ($C_5H_4O_2$)

Pearce and Gerster, 1950

mol %	p	mol %	p
	37.78°		
98.02	14.85	88.62	43.20
97.57	17.48	87.96	42.90
96.75	20.10	85.28	44.50
95.71	23.50	83.70	46.40
95.50	24.07	81.87	49.90
95.16	23.41	79.63	50.10
93.00	30.10	79.42	50.47
92.48	35.85 (sic)	78.52	52.30
92.17	29.60	76.17	52.87
91.69	35.90	1.82	52.3
90.38	37.30	1.00	52.4
89.47	39.10	0.49	51.1
89.36	39.90		
	65.56°		
97.54	57.80	83.42	159.7
96.03	72.7	78.08	181.4
95.09	83.31	71.44	190.4
93.42	102.3	2.08	208.6
92.07	115.5	1.55	207.7
90.75	121.2	1.02	200.3
88.02	136.0	0.45	199.5
85.66	148.7		
	93.33°		
97.33	166.5	80.42	421.4
94.72	230.2	2.77	635.2
91.88	277.3	1.77	630.0
90.80	335.9	1.60	623.8
89.72	333.2	1.05	598.6
84.51	409.4	0.42	610.8

t	p 100 %	p 0 %
20	1.2	49.2
37.8	4.7	-
51.7	10.5	192.3
65.6	22.2	-
79.4	42.0	595.9
93.3	76.8	-
107.2	132	-
121.1	215	-

Mains, 1922

mol % L	mol % V	mol % L	mol % V
	at b.t.		
0.38	2.57	3.96	20.7
0.77	5.83	4.40	21.7
1.25	8.94	5.54	24.9
1.62	10.1	5.60	25.1
2.08	12.7	6.42	26.4
2.66	15.7	7.40	26.1
2.88	16.7	7.45	28.3
3.41	18.4	9.49	28.5

Andreev and Tsirlin, 1954

% L	% V	% L	% V
	300 mm		
1.00	6.90	30.00	31.18
1.65	8.50	33.50	33.19
3.00	17.80	50.00	33.65
4.10	19.50	70.00	34.00
5.00	21.70	90.00	33.87
10.00	29.10	95.00	41.90
20.00	32.92	100.00	100.00

Melnikov and Tsirlin, 1956

% (L)	at b.t. % (V) 1.0 atm.	3.0 atm.	5.75 atm.
0.5	3.700	2.610	2.265
1.0	7.000	5.050	4.260
3.0	17.100	12.960	11.040
5.0	23.60	17.60	15.65
10.0	31.70	26.80	24.80
15.0	36.45	28.80	27.30

% (L)	7 atm.	9 atm.	14 atm.	18 atm.
0.5	2.135	2.030	1.815	1.780
1.0	3.900	3.635	3.280	3.130
3.0	10.125	9.315	8.220	7.740
5.0	15.15	14.15	12.50	11.70
10.0	23.60	21.60	19.40	19.10
15.0	26.25	25.80	24.30	23.55

Curtis and Hatt, 1949

b.t.	L (mol %)	V (mol %)
	6.17 kg/cm²	
159.0	0.00	0.00
158.8	0.17	0.70
158.7	0.17	0.88
158.1	0.86	3.16
158.0	0.94	3.70
157.5	1.54	5.98
157.3	2.31	6.68
157.0	4.70	8.08
156.95	7.31	8.89
156.9	9.03	9.03
157.1	15.5	9.74
157.3	31.3	10.3
158.6	42.3	11.0
159.4	48.0	10.9
162.4	57.7	11.5
174.0	68.7	17.1
176.0	72.0	19.7
178.8	68.9	20.7
180.0	74.3	22.4
189.6	78.8	27.1
201.0	82.7	35.0
204.0	83.0	40.6
239.8	100.0	100.0
	7.85 kg/cm²	
168.9	0.00	0.00
168.65	0.19	0.80
168.6	0.25	0.90
167.9	0.84	3.23
167.8	0.94	3.40
167.4	1.67	5.08
167.3	1.78	5.86
167.25	2.36	6.10
167.2	2.47	6.07
166.8	5.17	8.32
166.75	6.99	8.89
166.7	10.0	9.07
166.75	11.1	9.21
166.8	11.6	9.36
167.0	18.2	9.48
167.5	27.3	9.85
167.6	29.5	10.3
168.8	40.0	10.9
169.2	43.0	11.1
173.0	53.8	13.3
174.2	54.8	14.2
183.2	69.5	16.8
186.4	71.4	18.7
194.4	75.4	23.7
198.0	81.1	27.8
210.0	84.6	35.9
213.4	84.6	36.6
215.0	85.1	38.7
224.0	88.4	52.4
253.8	100.0	100.0
	9.83 kg/cm²	
178.3	0.00	0.00
178.2	0.15	0.68
178.1	0.19	0.74
177.8	0.52	1.93
177.7	0.58	2.04
177.6	0.70	2.45
177.5	0.88	2.84
177.2	1.46	4.14
176.8	2.22	6.22
176.7	2.68	6.31
176.5	3.98	7.78
176.4	4.59	7.98
176.3	6.74	8.78
176.2	8.74	9.03
176.3	10.1	9.25
176.8	18.5	9.70

Mains, 1922

%	b.t.	%	b.t.
0.79	99.67	10.2	98.04
1.37	99.45	15.4	97.91
2.54	99.27	21.1	97.91
3.54	98.87	30.0	97.90
5.06	98.48	34.7	97.90
6.94	98.33	52.0	97.93

%	b.t.	%	b.t.
73.0	97.90	98.5	127.8
82.2	97.90	99.3	155.9
86.0	97.96	99.7	160.1
90.2	98.3	99.95	160.7
94.8	99.8	100.00	161.7
98.3	118.5		

Lecat, 1949

%	b.t.
65	97.85 Az
100	161.45

Rothmund, 1898

%	sat.t.	%	sat.t.
7.78	32.75	61.29	122.47
12.84	80.42	81.45	105.50
14.94	87.97	87.17	87.20
31.93	118.75	91.85	58.42
40.01	121.65	93.27	45.25
51.64	122.30	95.99	13.97

Mains, 1922

t	% L_1	t	% L_2
16	8.12	8	96.5
17	8.18	26.6	94.6
27	8.72	37	93.3
27.2	8.72	44	92.8
27.5	8.68	65	90.9
44	9.80	70	90.3
61	11.9	84	88.0
66	12.5	96	84.5
92	17.0		

Evans and Aylesworth, 1926

%	sat.t.	%	sat.t.
94.09	27.85	50.04	120.9
91.83	53.35	48.98	120.85
88.79	73.6	47.37	120.8
83.03	95.95	33.77	117.9
72.19	115.1	27.84	113.1
65.03	119.15	22.39	106.1
56.34	120.5	20.75	102.8
50.69	120.85	15.04	85.8
50.54	120.9	9.82	53.1
50.30	120.9	9.03	39.5

Griswold, Klecka and West, 1948

sat.t.	%	
	L_2	L_1
37.78	93.5	9.5
51.67	92.2	10.9
65.56	90.3	12.5
79.44	87.7	14.5
93.33	84.8	19.3

C.S.T. = 120.56

Timmermans and Kohnstamm, 1910

dt/dp (5 - 165 atm.) = -0.001

Water + Chloral (C_2HOCl_3)

Beckmann, 1888

% $C_2H_3O_2Cl_3$	b.t.	% $C_2H_3O_2Cl_3$	b.t.
0.94	100.135	14.54	101.915
2.52	100.335	23.98	103.145
4.34	100.575	31.29	104.165
5.88	100.775	39.83	105.35
10.39	101.365	46.04	106.12

Christensen, 1900

%	b.t.	%	b.t.
0.00	99.98 755mm	15.25	98.28
0.45	99.95	22.95	99.13
1.63	99.89	23.47	99.10
2.50	99.85	24.02	98.90
3.52	99.77	24.58	98.88
4.80	99.73	25.16	98.85
6.43	99.70	25.80	98.85
7.47	99.63	26.46	98.83
8.76	98.55	27.14	98.95
9.93	98.50	27.86	98.95
11.60	98.43	28.64	98.91
13.50	98.35	29.45	98.90
0.00	100.00	15.54	99.29
0.92	99.95	17.17	99.22
2.05	99.94	18.75	99.13
2.94	99.90	20.25	99.05
3.81	99.87	20.11	99.12
4.66	99.83	23.19	99.01
5.40	99.75	24.65	98.97
7.24	99.70	26.07	98.96
8.23	99.62	27.40	98.93
10.25	99.53	28.71	98.93
12.08	99.43	29.97	98.91
13.85	99.35		
71.30	98.59	52.50	98.58
70.60	98.59	51.99	98.59
69.90	98.58	51.48	98.59
69.23	98.59	50.98	98.59
68.56	98.56	50.48	98.60
67.90	98.58	50.00	98.61
67.26	98.61	49.53	98.61
66.64	98.66	48.87	98.62
66.02	98.68	47.97	98.62
65.41	98.61	47.10	98.62
64.80	98.66	46.37	98.66
64.34	98.67	45.46	98.65
63.26	98.66	44.67	98.64
63.10	98.65	43.92	98.65
62.55	98.65	43.19	98.67
62.00	98.64	42.48	98.67
61.47	98.59	42.48	98.75
60.94	98.59	41.75	98.76
60.42	98.59	40.67	98.78
59.92	98.57	39.78	98.79
59.42	98.56	38.93	98.80
58:93	98.56	38.10	98.82
58.44	98.55	37.33	98.82
57.97	98.56	36.57	98.82
57.50	98.55	35.85	98.84
56.59	98.55	34.82	98.85
55.71	98.55	33.84	98.86
54.77	98.56	32.63	98.88
54.01	98.57	31.49	98.89
54.01	98.58	30.44	98.89
53.58	98.60	29.45	98.89
53.04	98.60		

Christensen, 1900

%	b.t.	%	b.t.
100.00	96.63	98.80	95.43
99.72	96.07	98.61	95.37
99.54	95.83	98.43	95.10
99.35	95.70	98.07	94.95
99.16	95.50	97.72	94.94
98.98	95.43	97.36	94.92
98.98	95.50	97.00	94.85
89.13	96.99	80.13	98.13
88.99	97.04	80.13	98.18
88.48	97.13	79.55	98.23
87.79	97.23	78.93	98.25
87.54	97.23	78.26	98.27
87.07	97.34	77.65	98.27
86.60	97.43	77.04	98.26
86.00	97,53	76.44	98.27
85.08	97.67	75.97	98.22
84.50	97.73	74.73	98.22
83.80	97.86	72.50	98.29
83.02	97.88	71.46	98.31
82.39	97.93	70.43	98.33
81.70	98.03	73.60	98.27
80.86	98.07		

van Rossem, 1908

mol %	b.t.	mol %	b.t.
100	97	39.6	96.9
90	95.5	30	97.57
85	95	20.4	97.6
77	94.9	15	97.7
70	94.9	12.25	97.9
68	95	10	97.9
62	95.2	5	98.2
50	96.1	0	99.3

mol %		b.t.
L	V	
90	87.0	95.5
50	53.4	96.1
30	33.9	97.57
12.25	13.35	97.9

%	sat.t.
40	179.8
50	174.6
60	172.5

Abegg, 1894

N (1+1)	f.t.	N (1+1)	f.t.
0.569	-1.145	1.437	- 3.18
0.854	-1.775	1.708	- 3.89
1.139	-2.44	2.277	- 5.665

Roth, 1903

% (1+1)	N (1+1)	f.t.
3.353	0.2104	-0.3918
6.413	0.4143	-0.7685
9.344	0.6232	-1.1508
13.091	0.9115	-1.6931
15.809	1.1354	-2.1169
16.220	1.1707	-2.1860
19.489	1.4636	-2.7660

Jones, Jones and Getman, 1904

M (1+1)	f.t.	M (1+1)	f.t.
0.15	-0.260	1.8	-4.176
0.30	-0.556	2.1	-5.200
0.60	-1.241	2.4	-6.170
0.90	-1.825	2.7	-7.200
1.2	-2.505	3.0	-8.280
1.5	-3.274		

Speyers, 1902

mol % (1+1)	f.t.	mol % (1+1)	f.t.
20.66	0.0	45.86	23.7
30.23	11.3	59.41	38.1

van Rossem, 1908

mol %	f.t.		m.t.	
0.0	0.0		0.0	
5.0	- 5.8		-	
5.7	- 6.5		- 4.4	E
6.6	- 7.6		- 3.3	
7.4	-		- 2.6	
8.3	- 9.8		- 1.8	
9.1	-11.0		- 1.8	
9.9	-11.7		- 1.3	
11.0	-13.2		- 1.3	
12.3	-10.8		-	
12.5	-		- 1.4	
13.8	- 6.7		- 1.3	L_1+L_2
15.3	-		- 1.5	
15.5	-		- 1.8	
16.1	- 1.1		-	
23.9	+17.2		-	
32.5	+33.8		-	
40.4	+44.7		-	
46.7	+47.4		-	
50.0	+47.4	(1+1)	-	
56.1	+46.4		-	
62.0	+43.4		-	
66.7	+47.0		-	
71.4	+48.0		-	
75.0	+48.2	(1+3)	-	
82.0	+43.0		-	
85.1	+37.2		-	
90.0	+32.3		-	
94.1	+21.8		-	
97.1	+ 4.0		-	
100.0	-57.5		-	

Turbaba, 1890 and 1893

mol %	$a.10^7$	$b.10^9$
3.84	2145	4410
1.96	706	5393
0.99	62	5764

$v_t = 1 + at + bt^2$

Kanonnikoff, 1885

% $C_2H_3O_2Cl_3$	t	d
33.22	20.9	1.17038
22.64	19.8	1.11428
11.82	20.9	1.05552
9.08	21.3	1.04018
3.92	21.7	1.01522

Turbaba, 1890 and 1893

% (1+1)	d 0°	d 15°	d 30°
8.02	1.03763	1.03620	1.03214
20.06	.10091	.09770	.09208
29.04	.15356	.14832	.14102
40.02	.22367	.21550	.20606
49.01	.28560	.27533	.26423
61.71	.38024	.36738	.35417
68.90	.43803	.42408	.40958
78.44	-	.50537	.48901
90.60	-	-	.95755

Rudolphi, 1901

% (1+1)	d 20°	d 44°
0.0	0.99820	0.99079
0.2	.99940	.99207
0.5	1.00125	.99383
2	.00651	.99903
5	.01976	1.01180
10	.04404	.03523
20	.09560	.08465
33.3	.17111	.15665
50	.27131	.25232
66.7	.39978	.37634
80	.51338	.48564
100	-	.6261

Speyers, 1902

t	d
sat. sol.	
0.0	1.433
15.3	1.506
31.0	1.572
46.6	1.606

Jones and Jones and Getman, 1904

M (1+1)	d	M (1+1)	d
0°			
0.15	1.009800	1.8	1.127992
0.30	.020008	2.1	.149968
0.60	.043140	2.4	.166328
0.90	.061832	2.7	.172920
1.2	.084788	3.0	.211584
1.5	.104940		

Kurnakov and Efremov, 1913

%	d 50°	d 60°	d 70°	d 85°	d 90°
0.00	0.98807	0.9832	0.97781	0.9866	0.9653
14.30	-	1.0546	-	1.0385	-
30.10	1.1595	.1479	1.1385	.1283	1.1147
47.62	.2763	.2680	.2577	.2435	.2372
59.08	.3712	.3595	.3478	.3307	.3249
67.16	.4374	.4272	.4138	.3946	.3864
73.17	.4955	.4824	.4684	.4456	.4375
77.82	.5383	.5227	.5054	.4681	.4681
81.50	.5730	.5568	.5375	.5083	.4944
84.50	.5959	.5784	.5547	.5230	.5073
85.82	.6038	.5839	.5603	.5267	.5112
87.00	.6113	.5902	.5642	.5295	.5118
87.68	.6141	.5937	.5678	.5301	.5140
88.10	.6165	.5955	.5665	.5299	.5133
88.72	.6191	.5973	.5689	.5316	-
89.10	.6193	.5966	.5688	.5294	1.5148
90.91	.6201	.5949	.5644	.5284	-
92.47	.6140	.5853	.5568	.5207	-
95.02	.5935	.5655	.5355	.5101	-
97.03	.5600	.5342	.5096	.4890	-
98.66	.5232	.5014	.4808	.4783	-
100.00	.4730	.4546	.4361	.4073	1.3987

Mathews and Cooke, 1914

t	d
88 %	
50	1.61647
60	.59294
70	.56648
85	.52989
90	.51331

Springer and Roth, 1930

%	d
0°	
0	1.00013
20	.1203
40	.2568
60	.423
100	.557

Kurnakov and Efremov, 1913

%	η 50°	60°	70°	85°	90°
0.00	548	468	406	335	316
14.30	-	593	-	419	-
30.10	1031	838	685	549	474
47.62	1731	1391	1077	839	738
59.08	2671	2089	1621	1178	1025
67.16	4156	3087	2278	1614	1362
73.17	5987	4340	2996	2030	1694
77.82	8751	5756	3752	2391	1963
81.50	11361	7210	4527	2700	2173
84.50	14326	8539	5066	2846	2252
85.82	15573	9013	5149	2896	2231
87.00	16370	9135	5137	2837	2140
87.68	17061	9054	5051	2741	2101
88.10	17383	8981	5013	2653	2057
88.72	17261	8783	4853	2553	-
89.10	16718	8647	4773	2476	1957
90.91	14073	7548	4061	2165	-
92.47	11392	6021	3395	1875	-
95.02	5695	3373	2154	1308	-
97.03	2681	1845	1353	902	-
98.66	1447	1150	970	653	-
100.00	0869	0779	677	557	523

Kurnakov and Efremov, 1913

mol %	%	$\tau(\eta).10^4$ 50-60	60.70	70-85
0.0	0.00	8.0	6.2	4.7
5.0	30.10	19.0	15.3	9.0
10.0	47.62	34.0	31.4	16.0
15.0	59.08	58.0	46.8	29.6
20.0	67.16	107.0	80.9	44.3
25.0	73.17	164.7	134.4	64.4
30.0	77.82	299.5	200.4	87.0
35.0	81.50	415.0	268.0	121.8
40.0	84.50	578.0	347.0	148.6
42.5	85.82	656.0	386.0	150.0
45.0	87.00	728.5	400.0	157.0
47.5	88.10	840.2	396.0	153.0
50.0	89.10	807.0	387.0	153.0
60.0	92.47	537.0	262.6	101.0
70.0	95.02	232.0	122.0	56.4
80.0	97.03	83.6	49.2	30.0
90.0	98.66	29.7	18.0	21.0
100.0	100.00	9.6	9.6	8.0

Mathews and Cooke, 1914

t	η	t	η
	88 %		
50	17400	85	2650
60	8985	90	2057
70	5012		

Springer and Roth, 1930

%	η (water=1)	%	η (water=1)
	0°		
0	1.0000	60	18.54
20	2.227	100	1.513
40	5.378		

Teitelbaum, Gortalova and Sidorova, 1951

mol %	σ 0°	5°	10°	15°	20°	25°
0.0	75.70	74.96	74.27	73.51	72.74	71.98
0.5	69.50	68.46	67.53	66.76	66.20	65.43
1.0	63.88	62.69	61.99	61.00	60.30	59.32
2.0	57.98	56.72	55.95	55.11	54.26	53.91
5.5	48.30	47.81	47.24	46.82	46.47	45.91
15.5	44.65	44.37	43.73	43.45	43.10	42.54
21.8	43.85	43.59	42.89	42.75	42.05	41.63
90.0	-	-	-	-	-	30.16
100.0	32.29	31.59	31.17	30.54	29.84	29.41

mol %	30°	35°	40°	45°	50°
0.0	71.21	70.37	69.52	68.76	67.92
0.5	64.58	63.74	63.11	62.06	61.28
1.0	58.48	57.56	56.86	56.16	55.53
2.0	52.93	52.23	51.67	51.32	50.61
5.5	45.56	44.93	44.36	43.94	43.52
15.5	42.19	41.84	41.35	41.00	40.44
21.8	41.14	40.64	40.15	39.80	39.03
30.3	-	-	-	-	37.91
42.5	-	-	-	-	36.86
51.0	-	-	-	-	35.31
62.5	-	-	-	-	32.92
69.5	-	-	-	-	31.42
72.6	-	-	-	-	30.86
77.8	-	-	-	29.74	29.10
90.0	29.53	29.03	28.34	28.05	27.42
100.0	28.50	28.01	27.45	26.82	26.18

mol %	55°	60°	65°	70°	75°
0.0	67.05	66.18	-	64.42	-
0.5	60.65	59.74	58.90	58.50	57.63
1.0	54.97	54.54	53.98	53.63	52.93
2.0	50.12	49.56	49.21	48.65	47.61
5.5	43.02	42.46	42.18	41.69	41.06
15.5	40.01	39.59	39.03	38.61	38.12
21.8	38.68	38.33	37.98	37.49	36.92
30.3	37.14	36.64	36.15	35.38	34.75
42.5	36.15	35.31	34.75	33.70	32.99
51.0	34.47	33.62	32.85	32.01	31.52
62.5	32.57	31.66	30.82	30.04	29.13
69.5	30.93	30.30	29.60	28.82	28.19
72.6	30.09	29.81	29.17	28.68	27.84
77.8	28.33	28.12	27.63	27.00	26.71
90.0	27.00	26.36	25.87	25.52	24.74
100.0	25.48	24.99	24.43	23.80	23.38

Kanonnikoff, 1885

% (1+1)	t	n H_α	D	H_β
33.22	20.9	1.37471	1.376806	1.381657
22.64	19.8	.36087	.362812	.367719
11.82	20.9	.34588	.347937	.352312
9.08	21.3	.341781	.343625	.348000
3.92	21.7	.335551	.337454	.341654

Rudolphi, 1901

% (1+1)	n H_α	n D	n H_β
	20°		
0.0	1.33151	1.33336	1.33747
0.2	.33194	.33371	.33793
0.5	.33242	.33424	.33838
2	.33378	.33566	.33980
5	.33720	.33906	.34323
10	.34323	.34511	.34941
20	.35635	.35831	.36280
33.3	.37548	.37755	.38230
50	.40075	.40300	.40815
66.7	.43310	.43551	.44122
80	.46256	.46511	.47132
	44°		
0.0	1.32875	1.33062	1.33460
0.2	.32903	.33081	.33491
0.5	.32949	.33127	.33538
2	.33089	.33272	.33681
5	.33405	.33588	.33999
10	.33998	.34182	.34606
20	.35258	.35447	.35891
33.3	.37090	.37292	.37764
50	.39468	.39686	.40192
66.7	.42647	.42895	.43444
80	.45493	.45754	.46360
100	.49089	.49328	.50028

Trifonov, Ust-Kachkintsev and Teitelbaum, 1948

%	κ 50°	κ 60°	κ 85°
3.0	37.200	40.420	44.422
5.0	38.880	41.570	46.300
7.0	40.600	44.150	49.740
10.0	35.140	38.350	43.340
12.0	32.200	35.140	39.420
13.5	30.480	33.240	35.860
15.0	28.220	30.220	32.450
20.0	16.900	19.700	23.700
25.0	11.280	13.340	15.500
30.0	4.835	6.124	6.888
45.0	1.788	2.464	3.064
47.5	1.332	1.866	2.300
50.0	1.105	1.520	2.025
52.5	0.886	1.248	1.764
60.0	0.365	0.500	0.700
65.0	0.127	0.172	-
75.0	0.039	-	-
100.0	0.0083	-	0.00085

Barbier and Roux, 1890

c ($C_2H_3O_2Cl_3$)	t	dispersive power
10	11.3	0.359
20	11.7	0.372
30	11.1	0.388
40	11.3	0.401
50	11.0	0.415
60	11.5	0.429

Water + Bromal (C_2HOBr_3)

Efremov, 1918

% (1+1)	b.t.	% (1+1)	b.t.
52.05	110.2	94.52	106.9
63.84	108.7	95.08	105.6
68.18	108.0	95.90	103.5
80.89	107.4	96.67	99.3
85.43	107.2	97.33	94.2
87.76	107.0	97.91	85.55
90.24	106.3	98.54	77.4
92.01	106.0	98.88	69.5
92.60	106.8	99.29	57.0
93.98	107.4		

% (1+1)	f.t.	% (1+1)	f.t.
0.00	0.0	93.98	49.7
52.05	25.7	94.52	49.0
63.84	32.8	95.08	48.4
68.18	35.4	95.90	47.1
80.89	43.2	96.67	44.7
85.43	45.4	97.33	43.3
87.76	46.7	97.91	40.3
90.24	48.0	98.54	33.8
92.01	48.9	98.88	27.3
92.60	49.4		

mol %	%	f.t.	E
0.00	0.00	0	-
0.12	1.58	-	-2.6
0.17	2.98	- 0.9	"
0.46	6.69	- 1.7	"
0.73	11.28	- 2.6	-
0.90	12.44	- 1.4	-2.6
1.35	17.71	+ 2.9	"
1.51	19.25	3.6	"
2.34	27.11	8.7	"
3.85	38.44	16.2	"
5.83	47.02	21.7	"
9.40	61.84	31.3	-3.3
15.62	74.29	38.7	-3.4
25.44	84.01	44.6	-3.3
38.05	90.56	48.2	-4.3
44.02	92.52	48.8	-
50.00	93.98	49.4	-
52.5	94.52	48.7	-
55.0	95.08	48.1	-
60.0	95.90	46.8	-
70.0	97.33	43.1	-
75.0	97.91	40.0	-
80.0	98.54	33.8	-
85.0	98.88	27.2	-

(1+1)

mol %	f.t.	sat.t.	mol %	f.t.	sat.t.
0.00	0.0	-	50.0	49.7	107.4
6.51	25.7	110.2	52.5	49.0	106.9
10.16	32.8	108.7	55.0	48.4	105.6
12.08	35.4	108.0	60.0	47.1	103.5
21.35	43.2	107.4	65.0	44.7	99.3
27.32	45.4	107.2	70.0	43.3	94.2
31.06	46.7	107.0	75.0	40.3	85.5
37.22	48.0	106.3	80.0	33.8	77.4
41.41	48.9	106.0	85.0	27.3	69.5
44.51	49.4	106.8	90.0	-	57.0

(1+1)

Next Page

Timmermans and Kohnstamm, 1910

dt/dp (5 - 155 atm.) = +0.027

Efremov, 1913 and 1918

%	d 40°	d 50°	d 60°
0.0	0.99224	0.98807	0.98324
5.0	1.4760	1.4664	1.4575
10.0	1.7247	1.7145	1.7023
15.0	1.9380	1.9142	1.8966
20.0	2.1062	2.0894	2.0705
25.0	.2407	.2126	.1889
30.0	.3400	.3113	.2877
35.0	.4176	.3865	.3587
40.0	.4850	.4501	.4167
42.5	.5075	.4737	.4397
45.0	.5263	.4923	.4549
47.5	.5490	.5143	.4760
50.0	.5662	.5298	.4923
52.5	.5848	.5498	.5115
55.0	.6005	.5635	.5249
57.5	.6130	.5780	.5420
60.0	.6249	.5896	.5546
65.0	.6477	.6112	.5768
70.0	.6636	.6284	.5922
75.0	.6647	.6339	.6003
80.0	.6640	.6309	.5985
90.0	.6511	.6190	.5869
95.0	.6375	.6101	.5812
100.0	.6269	.6022	.5776

%	d 70°	d 85°	d 100°
0.0°	0.97781	0.96865	0.95838
5.0	1.4485	1.4315	1.4145
10.0	1.6902	1.6676	1.6450
15.0	1.8802	1.8569	1.8337
20.0	2.0517	2.0225	1.9933
25.0	.1675	.1300	2.0926
30.0	.2641	.2166	.1691
35.0	.3280	.2881	.2295
40.0	.3832	.3289	.2747
42.5	.4037	.3482	.2926
45.0	.4175	.3647	.3072
47.5	.4385	.3792	.3223
50.0	.4516	.3927	.3371
52.5	.4717	.4148	.3587
55.0	.4867	.4275	.3737
57.5	.5037	.4403	.3853
60.0	.5185	.4515	.3964
65.0	.5370	.4734	.4175
70.0	.5509	.4890	.4348
75.0	.5625	.5083	.4489
80.0	.5627	.5092	.4603
90.0	.5537	.5167	.4804
95.0	.5532	.5175	.4817
100.0	.5544	.5188	.4832

Efremov, 1913 and 1918

mol %	η 40°	η 50°	η 60°
0	658.8	553.7	475.2
5	1669	1252	1022
10	3070	2211	1699
15	5413	3728	2807
20	8894	5870	4138
25	13454	8602	5677
30	19990	11479	7203
35	27145	14607	8582
40	34169	17128	9740
42.5	37600	18251	10322
45	40844	19432	10723
47.5	43756	20188	10996
50	46140	20691	10896
52.5	43012	20152	10809
55	39613	18984	10245
57.5	36312	17763	9743
60	33469	16428	9122
65	26613	13522	7863
70	21050	11165	6644
75	17011	9210	5693
80	13072	7535	4833
90	6810	4638	3294
95	5021	3722	2871
100	3725	3026	2501

mol %	η 70°	η 85°	η 100°
0	414.4	345.0	294.5
5	845.1	659	522
10	1354	996	795
15	2048	1447	1089
20	2988	1947	1386
25	3887	2354	1638
30	4747	2725	1839
35	5323	2971	1972
40	5885	3160	2045
42.5	6141	3243	2076
45	6273	3277	2063
47.5	6389	3232	2032
50	6340	3166	2005
52.5	6183	3120	1998
55	5963	3114	1944
57.5	5692	2984	1901
60	5410	2909	1841
65	4812	2681	1723
70	4247	2461	1632
75	3813	2261	1522
80	3328	2153	1479
90	2483	1782	1351
95	2232	1673	1282
100	2081	1607	1264

Previous Page

Efremov, 1918

mol %	wt %	η 40°	η 50°	η 60°
0	0	658	552	476
5	46	1670	1250	1020
10	63	3070	2210	1700
15	73.5	5405	3730	2810
20	79	8889	5880	4130
25	84	13440	8620	5682
45	92.5	40820	19420	10720
50	94	46080	20620	10890
55	95	39220	18980	10260
60	96	33440	16470	9133
70	97.5	21050	11150	6646
75	98	17010	9220	5698
80	98.5	13070	7547	4831
90	99.5	6826	4630	3295
100	100	3730	3030	2500

mol %	wt %	η 70°	η 85°	η 100°
0	0	415	345	294
5	46	846.0	659.2	525.0
10	63	1360	952	795.5
15	73.5	2050	1450	1090
20	79	2985	1950	1385
25	84	3891	2353	1639
45	92.5	6269	3277	2062
50	94	6349	3165	2000
55	95	5970	3115	1942
60	96	5405	2907	1842
70	97.5	4246	2457	1631
75	98	3817	2262	1522
80	98.5	3333	2151	1479
90	99.5	2481	1786	1351
100	100	2083	1605	1266

Water + Acetone (C_3H_6O)

Heterogeneous equilibria

a) Vapour pressure

Taylor, 1900

%	p 60°	p 55°	p 50°	p 45°
0	149	117.5	92	71.5
10	339	275	221	177
20	485	399	324	262
30	577	478	393	319
40	640	534	442	364
50	682	572	472	391
60	714	598	499	414
70	740	621	517.5	428
80	774	645	536	447
90	808	680	566.5	469
100	860	721	607	505

%	p 40°	p 35°	p 30°	p 25°
0	55	42	31.5	23.5
10	139	107	82	65
20	209	165	130	104
30	258	206	164.5	130
40	298.5	239	191.5	151
50	319	260	211	168
60	340	277	224	180
70	352	290	235	188
80	368	301	245	198
90	387.5	318	258	209
100	416	343	281	229

Schreinemakers, 1902

t	p	t	p
	8.04 %		
37.3	114	63.1	366
40.2	132	65.7	408
43.1	151	68.1	447.5
48.3	193	71.8	521
50.5	214.5	75.5	600
53.1	240.5	78.8	677
57.6	292	82.4	766
60.4	329		
	15.6 %		
35.7	155	62.0	481
40.0	189	65.7	554
45.2	240	68.9	626.5
49.6	290.5	71.45	690.5
54.1	351	74.3	761
57.85	410		
	82.94 %		
28.9	236	51.2	570
34.5	298.5	54.2	635
40.2	376	56.6	693
45.3	457	59.7	770
48.6	518		

Schreinemakers, 1902

	%	p		%	p
	0	92	50°	50	447
	8.04	209		60	498
	10	221		70	516
	15.6	296		80	536
	20	324		82.94	545
	30	395		90	564
	40	447		100	605
	0	126	56.5°	50	505
	8.04	278		60	633
	10	295		70	654
	15.6	387		80	682
	20	422		82.94	691
	30	510		90	716
	40	570		100	760
	0	214	68°	15.6	606
	8.04	447		20	656
	10	468		30	780
	0	289	75°	15.6	780
	8.04	589		20	870
	10	618			

Makovietski, 1908

mol % L	V	p	p_2	p_1
100	100	284.5	284.5	0.0
85	94	270.5	254.2	16.2
70	92	256.0	235.6	20.4
50	91	240.2	218.6	21.6
30	89.8	220.6	198.1	22.5
20	88.3	202.0	178.3	23.6
15	86.8	184.4	160.0	24.4
10	84.1	157.7	132.6	25.1
5	76.2	109.2	83.2	26.0
0	0.0	31.5	0.0	31.5

Beare, Mc Vicar and Ferguson, 1930

25°

p	p_1	p_2
23.7	23.7	0
50.1	23.9	26.2
61.8	23.4	38.4
81.3	23.0	58.3
91.9	22.1	69.8
126.1	20.8	105.3
126.6	20.1	106.5
144.3	19.9	124.4
150.6	18.6	132.0
159.8	19.8	140.6
176.1	20.2	155.9
184.4	19.3	165.1
199.1	16.7	182.4
213.5	12.4	201.1
229.6	0	229.6

25°

p	% L	% V	mol % L	mol % V
23.7	0.00	0.00	0.00	0.00
50.1	5.98	77.96	1.936	52.34
61.8	8.7	84.10	2.89	62.12
81.3	13.15	89.08	4.495	71.68
91.9	15.93	91.05	5.556	75.91
126.1	24.59	94.28	9.39	83.51
126.6	25.3	94.48	9.51	84.16
144.3	32.70	95.26	13.10	86.18
150.6	35.6	95.81	14.7	87.68
159.8	41.27	95.88	17.91	87.82
176.1	53.76	96.12	26.54	88.56
184.4	63.45	96.51	35.38	89.54
199.1	81.68	97.23	58.08	91.58
213.5	92.17	98.13	78.52	94.21
229.6	100	100	100	100

Wilson and Miles, 1934

%	p 10°	20°	30°	40°	50°
99.48	114.97	183.25	282.17	421.38	611.13
96.09	109.71	175.74	272.73	407.71	594.56
92.48	106.27	170.08	263.48	395.76	578.23
88.02	103.18	165.00	255.15	382.86	560.64
83.79	100.80	161.09	249.17	374.47	547.62
80.29	99.18	158.34	245.28	368.38	538.95
0.00	9.209	17.535	31.824	55.324	92.51

20°

% L	% V	p_2	p_1	p
28.09	94.89	96.8	5.21	102.0
54.92	96.96	135.9	4.26	140.1
58.36	97.17	139.4	4.06	143.5
80.75	97.37	154.8	4.18	159.0
87.43	37.87	161.0	3.50	164.5
43.18	-	-	-	170.8

Carveth, 1899

p	b.t. L	V
745	62.45	57.4
745	63.6	57.9
733	65.5	57.4
741	65.75	58.0
733	67.0	57.75
740	68.3	58.6
733	69.0	58.4
741	70.85	59.0
740	71.9	59.15
734	73.0	59.2
738	73.8	59.25
738	75.8	59.48
737	77.15	59.7
737	78.9	59.95
736	80.5	59.8
736	82.1	60.2
735	82.55	60.35
735	82.60	60.28
735	84.15	60.52
735	85.0	60.6
735	88.0	61.43
732	90.0	61.90
734	90.4	62.0
728	91.4	63.60
734	92.0	64.55
735	94.1	65.05
728	94.0	65.90
735	94.5	66.90
735	95.3	68.3

Bennett, 1929

t	% V	% L
	726.2 mm	
54.9	100	100
57.4	95.0	75.5
58.3	94.0	68.0
59.0	-	58.0
59.4	92.0	48.5
63.5	90.0	23.5
70.6	82.0	12.5
81.2	70.0	5.5
91.4	50.5	2.0
97.8	9.5	1.0
98.5	.3.5	0.5
98.8	0.0	0.0

York Jr. and Holmes, 1942

b.t.	% L	% V	mol % L	mol % V
100.0	1.0	13.1	0.3	4.4
103.2(?)	3.3	35.8	1.1	14.7
100.0	3.8	45.3	1.1	20.4
84.7	7.7	70.2	2.5	42.2
75.0	15.6	85.1	5.4	61.5
75.1	22.3	87.1	8.2	67.8
68.3	27.2	89.8	10.4	73.0
64.6	37.3	92.4	15.6	79.1
64.0	43.7	92.6	19.4	79.5
63.8	61.4	93.8	33.0	82.5
62.4	72.1	94.1	44.5	83.2
63.3	84.2	95.1	62.2	85.5
60.4	92.6	96.6	79.5	89.6
60.0	98.1	98.7	94.1	95.9

Brunjes and Bogart, 1943

b.t.	mol % L	mol % V
56.5	98.40	98.44
60.3	44.39	84.21
65.3	11.64	77.77
72.1	6.38	68.09
85.2	2.21	44.88
92.0	1.15	27.91

Othmer, Friedland and Schiebel, 1945

b.t.	mol % L	mol % V
74.0	5.0	62.0
68.9	8.2	72.0
65.8	12.5	77.1
62.9	22.0	80.0
62.7	44.5	83.1
58.3	66.0	86.6
57.8	76.0	88.8
57.3	86.5	93.0
56.7	93.0	96.0

Othmer and Benenati, 1945

mol % L	mol % V	b.t.
	760 mm	
0	0	100
1.5	32.5	89.6
3.6	56.4	79.4
7.4	73.4	68.3
17.5	80.0	63.7
25.9	83.1	61.1
37.7	84.0	60.5
50.5	84.9	59.9
67.1	86.8	59.0
80.4	90.2	58.1
89.9	93.8	57.4
100.0	100.0	56.2
	500 mm	
0	0	88.7
2.8	50.7	71.4
6.1	73.3	62.3
7.5	72.6	59.6
11.0	77.1	56.8
14.9	78.7	55.0
15.7	81.4	52.7
24.6	83.5	51.3
39.2	85.7	49.4
48.6	86.5	48.6
64.0	87.4	47.9
76.5	89.3	46.5
88.2	93.3	45.7
94.8	96:5	45.1
	350 mm	
0	0	-
2.1	47.1	66.6
6.5	71.6	53.0
11.2	76.5	48.5
10.8	78.4	47.4
13.6	80.1	45.8
13.0	80.8	46.2
25.4	84.1	41.9
37.9	86.3	40.1
51.2	87.0	39.4
65.1	88.0	37.9
78.8	90.6	37.1
91.5	94.7	36.2
	200 mm	
0	0	66.4
3.4	60.1	48.1
5.5	71.5	41.5
15.4	79.2	33.2
17.7	83.9	30.7
31.1	86.2	27.6
46.8	87.6	25.9
61.2	88.5	24.8
78.0	90.9	23.8
90.3	94.7	22.8
96.8	98.2	22.3
100	100	21.8

Othmer and Morley, 1946

t	mol % L	mol % V
	1 atm.	
93.2	2.2	48.1
85.1	7.3	73.8
71.7	19.0	87.9
63.0	40.8	93.0
60.9	61.4	94.3
59.8	73.4	94.7
59.8	76.5	94.8
59.0	86.7	95.2
58.2	93.2	96.7
57.1	97.4	98.2
	1.68 atm.	
110.0	1.6	41.1
102.3	4.1	63.0
81.7	23.7	89.4
75.6	53.8	93.5
74.5	57.1	93.6
73.6	69.1	94.1
72.7	83.3	95.0
72.3	91.8	96.3
72.2	96.9	97.9
72.2	99.1	99.3
	3.4 atm.	
128.2	3.1	49.2
119.0	6.8	71.9
114.1	10,5	79.4
102.3	23.3	88.7
99.6	35.0	90.2
98.2	51.5	91.7
97.9	60.7	91.8
96.8	78.7	92.6
96.2	92.1	95.0
96.1	96.5	97.1
95.9	98.1	98.3
	6.8 atm.	
149.5	5.5	58.0
136.8	11.2	79.2
132.0	17.6	82.8
127.3	40.4	86.4
126.7	51.9	87.6
125.5	77.0	89.7
125.6	80.8	90.1
124.8	85.8	90.4
124.3	97.5	97.2
124.8	98.7	98.4
	13.6 atm.	
177.2	7.3	60.0
164.0	22.6	76.8
160.0	41.7	81.6
158.3	61.8	84.6
157.3	68.1	85.4
156.3	84.8	88.6
156.0	90.3	90.9
157.8	97.0	96.5
157.5	98.9	98.6

Reinders and de Minjer, 1947

b.t.	% L	% V
100	0	0
95.1	2.5	34.0
90.1	5.0	55.2
82.1	10.0	74.8
76.2	15.0	83.1
72.2	20.0	87.0
69.5	25.0	89.2
67.6	30.0	90.1
65.0	40.0	91.8
63.3	50.0	92.8
62.0	60.0	93.7
61.0	70.0	94.4
59.9	80.0	95.3
58.2	90.0	97.0
56.2	100.0	100.0

Othmer, Chudgar and Levy, 1952

b.t.	mol % L	mol % V
56.18	100.0	100.0
57.1	85.0	91.8
57.4	79.3	90.0
58.5	66.1	86.0
58.9	60.9	84.7
59.5	53.8	84.0
59.7	50.6	83.7
60.0	44.4	83.2
61.1	30.0	80.9
61.8	26.4	80.2
66.2	12.0	75.6
76.5	4.1	58.5
83.0	2.3	46.2
87.8	1.0	33.5

Boiling and freezing point.

Haywood, 1899

%	b.t.	%	b.t.
	773 mm		
100.0	56.9	45.2	64.5
88 2	59.1	40.5	65.3
76.4	60.7	33.4	67.0
68.5	61.6	24.3	70.7
60.0	62.4	18.4	74.3
54.1	63.1	11.1	81.1
46.4	64.2	0.0	99.8

WATER + ACETONE

Carveth, 1899

%	b.t.	%	b.t.
740 mm			
100.00	55.90	23.61	69.07
95.29	56.97	18.90	71.90
89.19	58.08	17.21	73.30
84.65	59.02	16.49	73.58
77.79	59.47	12.46	77.16
72.07	60.18	9.58	80.72
65.86	60.72	4.56	88.72
54.74	61.78	1.9	94.63
46.71	63.17	0.0	99.25
35.90	65.86		

Bakowski, 1931

%	b.t.	%	b.t.
99.26	56.217	98.78	56.209
98.73	56.311	97.62	56.52
97.98	56.464	96.57	56.73
97.47	56.572	95.53	56.97
96.94	56.689	93.66	57.36
96.14	56.862	91.52	57.82
95.47	57.007	89.43	58.21
94.56	57.204	86.59	58.69
93.75	57.399	83.19	59.09
92.58	57.609	82.01	59.31
91.73	57.778	79.36	59.66
90.88	57.943		
89.73	58.093		
88.43	58.376	(second series)	
87.12	58.330		
85.95	58.765		
84.33	58.903		

Ernst, Litkenhous and Spanyer Jr., 1932

mol %	b.t.	mol %	b.t.
760 mm			
100	56.24	17.1	64.42
73.6	58.01	11.8	67.24
55.4	59.68	7.0	70.09
42.0	60.79	3.3	78.19
31.8	61.60	0	100.00

Griswold and Buford, 1949

mol %	b.t.	mol %	b.t.
8.2	72.6	42.7	61.1
11.9	68.2	63.5	59.2
19.7	64.5	71.5	58.6
30.8	62.6		

Schreinemakers, 1902

%	b.t.	%	b.t.
380 mm			
0	81.7	50	44.2
8.04	64	60	42.7
10	62.6	70	41.9
15.6	56	80	40.8
20	54	82.94	40.5
30	49	90	39.6
40	46	100	37.4
760 mm			
0	100	50	63.2
8.04	82.1	60	61.8
10	80.6	70	60.7
15.6	74.2	80	59.5
20	71.6	82.94	59.2
30	67.4	90	58.1
40	64.6	100	56.5

Taylor, 1900

p	b.t.	p	b.t.
0 %			
19.7	20.8	146.5	59.9
20.5	22.1	149.5	60.3
23.0	23.8	158.5	61.3
23.5	25.4	161.0	61.9
25.5	27.1	164.5	62.2
27.5	28.1	195.7	66.0
34.5	31.7	200.5	66.55
38.5	33.2	203.5	67.1
40.5	34.2	238	70.4
42.5	35.4	242.5	71.0
44	36.2	287	74.9
46	37.2	289	75.1
49.5	38.7	355	80.0
66	43.4	357	80.3
70	44.7	365.5	80.8
74.5	46.0	438.5	85.4
85	48.6	440.5	85.5
88	49.4	517.5	89.85
92.5	50.2	540.5	90.75
98	51.5	631.5	94.85
103	52.4	327.05	78.0
105	52.8	354.87	80.0
107	53.2	384.64	82.0
116	54.9	433.19	85.0
117.5	55.0	486.76	88.0
124.5	56.5	525.47	90.0
128.5	57.1	566.71	92.0
135.5	58.2	633.66	95.0
141.5	59.1		
1 %			
128.5	38.2	342.5	60.3
143	40.7	344.5	60.4
145	40.9	396.5	63.55
146	41.1	446	66.6
174	44.5	506	70.0
173.5	44.6	507.5	70.2
198.5	47.5	543.0	72.0
200.5	47.7	600.5	74.3
226.5	50.6	596.5	74.1
226.5	50.6	652	76.3
251	52.9	652	76.2
252	53.0	697.5	78.3
276	55.0	695.5	78.05
278	55.3	695.5	77.9
300	56.9	739.2	79.8
302	57.0		

1 % (second series)

143	40.4	348	60.8
145	41.1	352	60.9
147	41.3	404	64.3
181	45.5	405	64.3
183	46.0	452.5	67.1
186.5	46.2	453.5	67.1
200	47.7	497.5	69.1
202	48.0	499	69.3
231	50.9	551	71.6
233	51.1	595.5	73.6
262.5	54.2	597.5	73.8
258.5	53.5	650	76.1
258.5	53.6	695.5	78.5
278.5	55.3	695.5	78.4
282	55.5	742	80.05
295.5	56.6	742	79.9

20 %

117	27.2	357	52.5
126	29.5	395.5	54.9
128	29.8	446	57.7
140.5	31.7	447	57.9
141.5	31.9	497.5	60.7
144	32.4	498.5	60.8
147	32.7	542.5	63.0
173.5	36.2	542.5	62.9
177.5	36.6	598.5	65.55
198.5	39.2	598.5	65.6
253	44.5	636	67.1
257	44.7	646	67.55
295	48.0	647	67.65
296	48.0	692.5	69.4
354	52.2	693	69.4
356	52.4	730.5	70.7

20 % (second series)

121.5	28.1	349.5	51.7
127.5	29.1	397.5	54.8
131.5	30.2	399	54.9
133.5	30.6	448	57.9
136	30.9	449.5	58.0
159.5	34.1	498.5	60.7
162.5	34.4	499.5	60.7
169.5	34.9	548.5	63.0
195	38.2	549.5	63.05
196	38.4	598.5	65.2
233	42.2	644	65.25
237	42.6	645	67.1
249.5	43.7	712	69.7
251.5	43.8	716	69.9
277	46.0	743.7	71.2

20 % (third series)

159.5	34.1	400	55.0
163	34.7	400	55.1
164	35.0	445.5	57.8
196.5	38.6	445.5	57.7
198.5	38.7	496.5	60.7
198.5	38.75	547.5	63.05
225	40.5	549.5	63.1
249	43.8	601.5	65.9
247.5	43.7	602.5	65.8
274	46.1	660	68.0
275.5	46.2	701.5	69.7
302	48.2	705	69.9
303	48.3	703	69.8
344	51.5	739	71.1

30 %

148.5	27.9	337	46.3
156.6	29.1	402.5	50.6
161.5	29.6	403.5	50.6
178.5	31.7	449.0	53.4
178.5	31.8	451.5	53.55
187.5	32.8	453.5	53.6
191.5	33.4	501.5	56.2
196.5	33.8	502.5	56.2
243	38.9	549.5	58.6
245	39.1	601.0	61.2
251	39.5	602	61.2
253	39.6	603	61.25
302	43.7	650	63.2
303	43.7	651	63.3
351.5	47.2	700.5	65.3
346.5	46.95	698	65.3
333	45.95	737	66.6

40 %

176	27.6	538	55.0
186	28.8	540	55.3
191.5	29.6	639	59.9
344.5	43.6	643	60.0
348.5	43.8	641	59.9
451.5	50.3	734.8	63.7

40 % (second series)

157	25.6	448.5	50.4
165.5	26.6	449.5	50.4
176.0	28.1	524.5	54.5
180.5	28.6	527	54.65
183	28.8	543	55.45
184	29.1	544	55.5
193.5	30.2	596	57.9
199	30.8	599	58.0
245	35.7	645.5	60.3
252	36.2	646.5	60.3
306.5	40.7	690.5	62.2
307.5	40.85	694.0	62.25
351.5	44.2	718.5	63.1
353.5	44.3	718.5	63.05
404.5	47.7	738.5	63.8
406	47.75		

50 %

181.5	26.6	437	47.9
192.5	27.8	441	48.0
204.5	29.2	443	48.1
212.5	30.3	525.5	52.7
222.5	31.4	526.5	52.7
227.5	31.8	627.5	57.7
313	39.4	626.5	57.6
315	39.6	730	61.9
318	39.7	730	61.85
316.5	39.7		

50 % (second series)

146.5	22.1	349	42.2
152.5	22.8	401.5	45.8
157.5	23.6	406	46.0
161.5	24.1	449.5	48.8
169.0	25.2	452.5	48.85
172.5	25.7	496.5	51.3
176.5	26.1	498	51.4
203.5	29.3	548	53.9
205.5	29.4	597	56.2
252.5	34.3	648	58.5
254.5	34.6	647.6	58.45
309.5	39.4	693	60.5
314.0	39.6	745.3	62.5

60 %

199.5	27.3	399.5	44.0
202.5	27.6	502	50.2
206.5	27.8	504	50.2
209.5	28.1	620	55.9
297.5	36.8	623	56.1
299.5	36.9	625	56.2
301.5	37.0	735.5	60.85
397.5	43.9		

60 % (second series)

156.5	21.6	352	40.9
159.5	22.1	396	43.9
161	22.5	398	44.0
165	23.0	450	47.2
168	22.4	453	47.4
198.5	27.0	500	50.1
200.5	27.35	550.5	52.65
227	30.2	550.5	52.7
228.5	30.4	607	55.3
244	32.1	642.5	56.9
246	32.2	643.5	57.0
297.5	36.7	696.5	59.2
300	36.9	701.5	59.4
351	40.9	739	61.0

70 %

196.5	25.9	399	43.1
208.5	27.0	502.5	49.2
215.5	27.9	505	49.4
228.5	29.4	507	49.5
257.0	32.2	592.5	53.7
260	32.4	595	53.8
298	35.7	674	57.5
298.5	35.8	680	57.7
301.5	36.0	684	57.8
395	42.9	729.5	59.7

70 % (second series)

163.5	21.7	400	43.3
177.5	23.8	404.5	43.5
181	24.1	458.5	46.8
186.5	24.7	459.5	46.95
190	25.1	504.5	49.3
213.5	27.6	506.5	49.4
216.5	28.1	555	51.95
222.5	28.85	556	52.0
251.5	31.7	602	54.1
254.5	32.0	604	54.2
305	36.25	649.5	56.2
307.5	36.5	695	58.1
351.5	39.95	696	58.1
354.7	40.2	748.5	60.3

80 %

176	22.3	464	46.0
183.5	23.4	466.5	46.1
189.5	24.1	468	46.2
193.5	24.5	499.5	48.0
200	25.2	502.5	48.2
253	30.9	548.5	50.6
262	31.6	550.5	50.7
268	32.2	552.5	50.75
299	34.8	596.5	52.8
302	35.1	599.5	53.0
307	35.4	644.5	55.0
355	39.0	647.5	55.1
357.5	39.2	647.5	55.0
359	39.4	687.5	56.7
398	41.9	689.5	56.8
403	42.3	746	59.0
406	42.5		

80 % (second series)

170.5	21.6	360	39.4
174.5	22.1	405	42.4
175.5	22.3	407.5	42.6
194	24.4	456.5	45.6
195	24.5	458.5	45.7
220	27.5	510.5	48.6
250	30.6	513	48.8
251.5	30.7	516.5	48.9
280.5	33.3	551.5	50.7
281.5	33.35	554	50.8
310	35.8	609	53.3
312	36.0	650.5	55.2
317.5	36.3	691.5	56.9
357	39.2	742.2	58.9

90 %

191.5	23.1	398	40.7
196.5	23.6	458.5	44.4
208.5	25.1	464.5	44.7
213.5	25.7	531.5	48.4
214	25.6	533.5	48.4
216	25.8	558.5	49.6
255	29.8	560.5	49.7
254	29.6	610.5	52.0
263	30.5	612.5	52.1
305.5	34.1	615	52.2
308.5	34.3	643	53.4
311	34.4	645	53.5
346	37.35	709.5	56.2
350	37.45	715.5	56.4
396	40.6	737.5	57.3

90 % (second series)

181	22.0	400	40.8
188	22.6	403	40.9
194.5	23.4	450	43.9
197	23.6	452	44.0
224	26.5	496	46.5
254	29.6	498	46.5
252	29.4	557.5	49.5
254	29.6	558.5	49.6
276.5	31.6	592.5	51.2
277.5	31.7	692	53.4
296.5	33.5	693	55.5
347.5	37.3	693	55.4
348.5	37.35	745.7	57.6
395.5	40.5	745.7	57.7

100 %

188.5	20.7	498	44.6
192.5	21.1	506	44.9
194.5	21.3	507.5	45.0
195	21.45	548.5	47.2
197	21.7	554.5	47.5
218	23.9	593.5	49.4
222	24.3	596.5	49.5
254.5	27.6	645	51.7
261.5	28.2	647	51.7
295	31.2	603	49.7
301	31.7	615	50.2
308	32.3	640.5	51.5
345	35.0	642.5	51.6
347	35.2	695.5	53.9
348	35.3	697.5	54.0
397.5	38.5	697.5	54.05
399.5	38.7	737.5	55.6
403.5	39.1		

100 % (second series)

318	33.1	548	47.3
353.5	35.7	599.5	49.8
355.5	35.9	601	49.8
397	38.7	650	52.0
398	38.8	698.5	54.1
415	41.7	700	54.2
498.5	44.7	739.5	55.7
547	47.2		

Taylor, 1900

p	b.t. 0 %	b.t. 10 %	b.t. 20%
100	51.7	33.7	-
150	60.2	41.6	33.0
200	66.5	47.7	39.0
250	71.6	52.85	43.9
300	75.9	57.1	48.2
350	79.65	60.8	51.8
400	83.0	64.05	55.05
450	86.0	66.95	58.0
500	88.7	69.5	60.75
550	91.2	71.9	63.2
600	93.5	74.05	65.55
650	95.7	76.25	67.7
700	97.7	78.3	69.6
750	99.65	-	71.4
800	101.45	-	73.05

p	b.t. 30 %	b.t. 40 %	b.t. 50 %	b.t. 60 %
150	28.05	24.9	22.6	-
200	34.3	31.0	28.8	27.35
250	39.35	36.05	34.1	32.6
300	43.5	40.2	38.4	36.9
350	47.15	44.0	42.3	40.75
400	50.4	47.3	45.6	44.1
450	53.45	50.4	48.7	47.2
500	56.15	53.2	51.45	50.05
550	58.6	55.8	53.95	52.7
600	61.0	58.15	56.35	55.05
650	63.25	60.4	58.65	57.35
700	65.25	62.45	60.7	59.5
750	67.1	64.35	62.65	61.4
800	68.85	66.2	64.45	63.25

p	b.t. 70 %	b.t. 80 %	b.t. 90 %	b.t. 100 %
200	26.35	25.2	24.1	21.95
250	31.5	30.5	29.2	27.1
300	35.9	34.9	33.6	31.65
350	39.8	38.6	37.45	35.5
400	43.3	42.15	40.9	38.9
450	46.3	45.2	43.9	42.0
500	49.05	48.05	46.7	44.75
550	51.7	50.7	49.2	47.3
600	54.0	53.0	51.55	49.75
650	56.3	55.2	53.75	52.0
700	58.45	57.25	55.8	54.2
750	60.4	59.15	57.8	56.1
800	62.15	60.9	59.7	57.95

Beckmann, 1888

%	f.t.	%	f.t.
0.662	-0.220	12.35	-3.820
2.416	-0.770	18.52	-5.660
6.221	-1.930		

Abegg, 1894

N	f.t.	N	f.t.
0.500	-0.92	3.000	- 6.55
1.000	-1.898	4.000	- 9.32
2.000	-4.077	5.000	-12.35

Waddell, 1899

%	f.t.	%	f.t.
0.47	-0.16	10.23	- 3.43
1.40	-0.46	10.57	- 3.65
1.69	-0.56	11.07	- 3.82
2.98	-0.96	11.98	- 4.25
3.84	-1.22	12.45	- 4.50
3.95	-1.29	12.86	- 4.44
4.20	-1.38	14.89	- 5.34
6.35	-2.13	17.47	- 6.35
6.80	-2.21	18.78	- 7.11
7.95	-2.67	19.90	- 7.62
9.26	-3.11	21.26	- 8.41
9.40	-3.09	21.64	- 8.34
10.23	-3.44		

Jones and Getman, 1904 and Jones, 1904

M	f.t.	M	f.t.
0.5	- 0.930	6.0	-16.000
1.0	- 1.919	7.0	-20.000
2.0	- 4.110	8.0	-24.000
3.0	- 6.800	9.0	-29.560
4.0	- 9.700	10.0	-33.750
5.0	-13.000		

Benjamin, 1932

mol %	f.t.	E
3.2	- 2.2	-
7.0	- 6.2	-
11.6	-11.0	-
15.0	-16.6	-
21.8	-20.6	-
30.5	-24.5	-
40.8	-29.7	-
52.7	-34.0	-105.0
72.5	-41.2	-106.5
85.0	-56.5	-105.0
91.2	-64.4	-105.4
100.0	-94.4	-

Lemonde, 1938

vol %		D
	17°	
0.5		1.25
20		1.00
40		0.88

Properties of phases . Density .

Jahn, 1891

%		d
	20°	
100		0.79476
19.985		.97152
0		.9982

Mc Elroy and Krug, 1892 and Krug and Mc Elroy, 1893

%	d 15°	d 20°	d 25°
100	0.79726	0.79197	0.78630
95	-	.80748	.80205
90	-	.82197	.81653
85	-	.83588	.83073
80	-	.84981	.84454
75	0.86442	.86129	.85533
70	.88085	.87545	.87073
65	.89271	.88785	.88282
60	.90447	.89953	.89477
55	.91526	.91054	.90603
50	.92549	.92051	.91673
45	.93518	.93091	.92678
40	.94488	.94075	.93691
35	.95293	.94931	.94547
30	.96092	.95748	.95411
25	.96783	.96490	.96221
20	.97444	.97210	.96961
15	.98038	.97831	.97604
10	.98681	.98513	.98342
5	.98921(?)	.99169	.98979
0	.99160(?)	.89826(?)	.99712

Mc Elroy, 1894

%	d 20°	d 25°
100	0.79197	0.78630
95.01	.80717	.80174
90.09	.82172	.81626
87.88	.82784	.82278
80.04	.84972	.84443
75.02	.86342	.85796
70.04	.87495	.87051
60.06	.89920	.89469
50.10	.92078	.91656
40.03	.94057	.93695
30.83	.95606	.95286
19.67	.97270	.97024
10.01	.98507	.98337
0	.99823	.99707

Van Aubel, 1895

%	d	%	d
	15°		
0.00	0.9992	73.32	0.8698
13.27	.9827	88.69	.8288
45.24	.9340	100.00	.7952
55.7	.9125		

Sapozhnikov, 1896

%	d 0°	d 15°	d 30°
100.00	0.81434	0.79760	0.78033
97.66	.82118	.80439	.78752
95.58	.82727	.81081	.79381
93.76	.83260	.81622	.79944
91.91	.83793	.82170	.80500
90.014	.84329	.82720	.81057
87.5	.85022	.83431	.81785
82.38	.86395	.84814	.83226
77.469	.87669	.86146	,84604
75.46	.88172	.86665	.85118
69.98	.89529	.88083	.86558
64.949	.90675	.89246	.87760
60.018	.91760	.90378	.88938
55.123	.92780	.91488	.90065
52.32	.93333	.92042	.90681
52.195	.93368	-	-
51.19	.93553	0.92275	0.90933
48.028	.94148	.92911	.91605
44.11	.94835	.93662	.92414
40.024	.95509	.94413	.93229
38.038	.95812	.94747	.93600
35.386	.96209	.95202	.94101
30.24	.96907	.96016	.95014
25.059	.97529	.96766	.95879
19.957	.98060	.97447	.96672
18.014	.98247	.97692	.96981
17.08	.98338	.97804	.97119
14.985	.98529	.98061	.97421
10.022	.98972	.98659	.98130
7.933	.99154	-	-
4.933	.99447	0.99263	0.98851
2.541	.99696	-	-
1.035	.99865	-	-
0.000	.99987	0.99913	0.99567

Drude, 1897

%	d	%	d
	16°		
0	0.999	80.2	0.854
25.0	0.967	89.9	0.827
50.0	0.924	94.9	0.813
66.9	0.888	100	0.796

Rüdorf, 1903

%	N	d	%	N	d
		25°			
100.20	13.65	0.791	10.05	1.706	0.985
73.00	10.92	0.868	5.01	0.853	0.988
42.27	6.827	0.935	2.50	0.426	0.992
33.25	5.46	0.953	0	-	0.997
20.46	3.413	0.968			

Jones and Getman, 1904 and Jones, 1904

N	d	N	d
		0°	
0.0	0.999868	5.0	0.953112
0.5	.992708	6.0	.942992
1.0	.989168	7.0	.930052
2.0	.981584	8.0	.916640
3.0	.972516	9.0	.900848
4.0	.964224	10.0	.883520

Herz and Knoch, 1905

d	%	d	%
		25°	
0.99707	0	0.92895	50
0.98574	10	0.88186	70
0.97436	20	0.82328	90
0.96164	30	0.78682	100
0.95590	40		

Schwers, 1911

t	d	t	d
		10 %	
0.0	0.99025	43.35	0.97526
22.45	0.98431	54.35	0.96932
34.6	0.97945	61.4	0.96511
		20 %	
0.0	0.98090	44.3	0.95809
20.4	0.97176	54.55	0.95141
34.6	0.96394	62.2	0.94592
		30 %	
0.0	0.97025	42.65	0.94230
19.5	0.95832	54.15	0.93347
34.15	0.94848	62.65	0.92643
		40 %	
0.0	0.95585	44.25	0.92105
20.2	0.94054	62.35	0.90472
34.2	0.92937		
		50 %	
0.0	0.93816	44.55	0.89907
23.8	0.91811	54.0	0.89014
34.25	0.90871		
		60 %	
0.0	0.91758	44.35	0.87574
19.7	0.90012	54.55	0.86504
34.2	0.88586		
		70 %	
0.0	0.89581	43.8	0.85148
21.55	0.87450	54.2	0:84020
33.75	0.86208		
		80 %	
0.0	0.87096	43.7	0.82466
19.7	0.85071	54.25	0.81277
34.35	0.83502		
		90 %	
0.0	0.84467	34.0	0.80880
20.9	0.82327	43.8	0.79716
		100 %	
0.0	0.81252	34.5	0.77621
18.07	0.79514	44.7	0.76323

Reilly and Ralph, 1920

%	d	%	d
		20°	
100	0.79091	50.03	0.92057
94.98	.80689	37.49	.94499
89.58	.82221	29.62	.95779
79.92	.85020	19.31	.97307
71.10	.87215	9.93	.98588
57.46	.90469		

Barr and Bircumshaw, 1921

%	mol %	d
	25°	
100	100	0.78502
89.9	73.4	.81560
80.4	56.1	.84249
70.9	43.3	.86788
61.2	32.9	.89151
50.6	24.9	.91500
40.6	17.5	.93502
30.3	11.8	.95357
24.7	9.3	.96247
23.6	8.7	.96414
14.4	4.8	.97743
12.2	4.2	.98015

Sandonnini and Gerosa, 1925

%	d	%	d
		25°	
100	0.7875	39.46	0.9378
90.14	.8159	30.11	.9558
80.14	.8441	20.13	.9697
70.24	.8706	11.40	.9887
59.49	.8951	0	.9972
49.46	.9171		

Naville, 1926

%	d	%	d
		20°	
0	0.998	60	0.900
10	0.986	70	0.877
20	0.974	80	0.852
30	0.958	90	0.825
40	0.942	100	0.795
50	0.921		

Graffunder and Heymann, 1931

mol%	d	mol%	d
	25°		
100	0.7865	26.92	.9080
73.85	.8155	16.74	.9378
58.19	.8390	0	.9971
42.37	.8695		

Ernst, Litkenhous and Spanyer Jr., 1932

mol %	d	mol %	d
	25°		
100	0.7855	17.1	0.9370
73.6	.8148	11.8	.9543
55.4	.8438	7.0	.9694
42.0	.8692	3.3	.9833
31.8	.8934	0	.99427
23.7	.9165		

Young, 1933

%	d	%	d
	20°		
100.000	0.79061	41.380	0.93716
99.023	.79349	30.290	.95667
98.103	.79631	22.554	.96837
96.911	.79974	19.505	.97262
95.993	.80259	11.893	.98241
95.088	.80544	10.308	.98469
90.125	.82015	7.368	.98858
78.238	.85332	4.706	.99180
69.208	.87647	2.479	.99532
59.520	.89969	0.000	.99826
49.880	.92056		

Tomonari, 1936

%	d	%	d
	20°		
100	0.7908	40	.9410
80	.8490	20	.9721
60	.8993	0	.9982

Griswold and Buford, 1949

mol %	d	mol %	d
	25°		
2.9	0.98602	30.8	0.89990
8.2	0.96871	32.3	0.89243
11.9	0.95227	42.7	0.86830
13.6	0.94955	63.5	0.83000
19.7	0.92860		

Jacobson, 1951

vol %	d	vol %	d
	20°		
0.0	0.9982	59.5	0.9105
10.1	.9868	69.8	.8879
19.4	.9758	78.9	.8640
29.7	.9626	89.8	.8316
39.6	.9476	100.0	.7929
49.4	.9309		

Griffiths, 1952

%	d	%	d
	25°		
0	0.99706	60.49	0.89367
9.82	.98573	71.89	.86578
21.23	.95939	80.74	.84205
29.62	.95611	89.15	.81872
39.98	.93724	100.00	.78507
51.43	.91402		

Othmer, Chudgar and Levy, 1952

%	d	%	d
	25°		
100.0	0.7848	50.0	0.9159
90.0	.8146	40.0	.9361
80.0	.8432	30.0	.9537
70.0	.8695	20.0	.9700
60.0	.8942	10.0	.9831

Sapozhnikov, 1896

%	τ.10⁶ 0–15°	τ.10⁶ 15–30°
100	1374	1412
97.66	1363	1369
95.58	1328	1370
94.82	1322	-
93.76	1312	1344
92.44	1296	-
91.906	1291	1329
90.014	1272	1315
87.507	1247	1291
84.95	1225	-
82.16	1193	-
77.469	1158	1172
75.46	1140	1159
69.96	1097	1136
64.949	1051	1093
60.018	1005	1047
55.123	943	1008
52.32	922	972
51.19	910	957
48.028	876	926
44.11	824	878
40.024	765	826
38.038	743	799
35.386	698	761
30.24	612	690
25.06	520	606
19.957	417	528
18.014	376	483
17.08	362	465
14.985	316	434
10.022	211	355
7.536	164	-
5.414	128	-
4.933	123	2770
2.541	79	-
0	46	-

Jacobson, 1951

vol %	π	vol %	π
	20°		
0.0	45.39	59.5	49.60
10.1	42.66	69.8	55.78
19.4	41.30	78.9	62.87
29.7	41.07	89.8	73.57
39.6	42.47	100.0	89.09
49.4	45.25		

vol %	sound velocity m/sec.10^{-5}	vol %	sound velocity m/sec.10^{-5}
	20°		
0	1485.7	59.5	1488.0
10.1	1541.2	69.8	1420.9
19.4	1575.2	78.9	1356.8
29.7	1590.5	89.8	1278.5
39.6	1576.4	100.0	1189.8
49.4	1540.7		

Viscosity and surface tension

Rudorf, 1903

%	N	η (water=1)
	25°	
100.20	13.65	0.648
73.00	10.92	0.917
42.27	6.827	1.568
33.25	5.46	1.667
20.46	3.413	1.418
10.05	1.706	1.211
5.01	0.853	1.106
2.50	0.426	1.044

Jones and Mc Master, 1906

%	η 0°	η 25°	%	η 0°	η 25°
0	1778	891	75	1700	890.4
25	2930	1276	100	409.7	323.7
50	3027	1330			
0	1778	891	75	1695	872.7
25	2868	1205	100	504.5	397.7
50	2992				

Jones and Mahin, 1909

%	η 0°	η 25°
0	1778	891
25	2908	1250
50	3005	1305
75	1659	885
100	429	346

Muchin, 1913

%	η	%	η
	20°		
0.0000	1002	3.2935	1088
0.0405	1011	9.1240	1247
0.6573	1019	16.7597	1361
1.8075	1050		

Davis, Hughes and Jones, 1913

%	η 15°	η 25°	η 35°	η 45°
100	-	346	-	-
75	1115	886	721	599
62.5	1516	1158	910	731
50	1774	1329	1026	818
37.5	1829	1361	1050	827
25	-	1266	975	779
12.5	1442	1089	862	700
0	1137	895	725	603

Jones and al., 1915

vol%	η 15°	η 25°	η 35°
100	-	350	-
75	1125	896	732
50	1766	1306	1009
25	1690	1248	964
0	-	890	-

Sandonnini and Gerosa, 1925

%	η	%	η
	25°		
100	321.0	39.46	2176
90.14	573.7	30.11	1940
80.14	996.0	20.13	1786
70.24	1347	11.40	1231
59.49	1826	0	893
49.46	2110		

Ernst, Litkenhous and Spanyer Jr., 1932

mol %	η	mol %	η
	25°		
100	343.9	17.1	1325
73.6	454.9	11.8	1336
55.4	626.1	7.0	1290
42.0	836.5	3.3	1121
31.8	1083.0	0	893
23.7	1240.0		

Varenne and Godefroy, 1904

%	min. of flow	%	min. of flow
	13°		
0	230	60	1065
10	370	70	990
20	550	80	835
30	760	90	720
40	965	100	665
50	1070		

Kling, 1905

%	min. of flow	%	min. of flow
	17°		
0	177	39.32	417
5.57	189	40.12	434
11.73	212	40.30	436
17.35	237	40.48	436
21.57	259	40.83	430
23.84	273	41.52	425
25.48	290	42.86	437
27.06	306	44.13	453
28.52	320	44.75	450
29.83	333	46.24	443
31.37	337	46.66	440
32.89	360	47.09	438
33.77	375	47.64	430
35.06	380	48.72	395
36.71	390	50.00	382
38.27	410		

Morgan and Scarlett, 1917

%	σ 0°	σ 15°	σ 45°
0	75.87	71.86	68.46
5	58.80	54.54	51.52
10	52.25	47.81	44.67
20	43.98	39.83	36.87
25	41.06	36.98	34.00
30	38.73	34.73	31.98
40	34.94	31.50	28.94
50	32.32	29.25	26.81
75	28.50	25.75	23.54
85	27.46	24.63	22.40
90	26.92	24.08	21.79
95	26.23	23.19	20.89
100	25.17	22.17	19.78

Sandonnini and Gerosa, 1925

%	σ	%	σ
	25°		
100	25.81	49.46	34.2
90.14	26.90	39.46	38.1
80.14	29.21	30.11	41.4
70.24	30.15	20.13	49.0
59.49	32.5	0	74.0

Bennett, 1929

%	σ (arbitrary units)	%	σ (arbitrary units)
	20°		
0	111.5	34.5	57.5
1.6	100.0	44.2	52.5
3.2	93.5	54.3	49.8
6.5	86.0	64.9	46.2
11.5	76.6	76.0	44.5
16.5	70.8	88.9	41.5
25.3	63.2	100	38.8

Ernst, Litkenhous and Spanyer Jr., 1932

mol %	σ	mol %	σ
	25°		
100	22.99	17.1	33.91
73.6	25.56	11.8	37.00
55.4	26.77	7.0	40.93
42.0	27.72	3.3	47.27
31.8	29.28	0	71.97
23.7	31.60		

Teitelbaum, Ganelina and Gortalova, 1951

vol %	mol %	σ 0°	σ 5°	σ 10°	σ 15°
0	0.0	75.70	74.96	74.27	73.51
2	0.5	64.54	63.84	63.15	62.53
5	1.1	61.22	60.52	59.70	58.90
10	2.3	55.12	54.27	53.50	52.60
15	3.4	51.35	50.50	49.57	48.73
20	5.4	47.34	46.50	45.72	44.87
40	14.1	37.70	37.08	36.31	35.77
70	36.5	30.45	29.91	29.37	28.91
100	100	26.24	25.48	24.78	24.09

mol %	σ 20°	σ 25°	σ 30°	σ 35°	σ 40°
0	72.75	71.98	71.21	70.37	69.52
0.5	61.99	61.37	60.75	60.06	59.44
1.1	58.13	57.42	56.65	55.95	55.13
2.3	51.72	51.02	50.26	49.45	48.73
3.4	47.80	47.11	46.26	45.41	44.50
5.4	44.23	43.41	42.63	41.86	41.09
14.1	35.16	34.39	33.85	33.15	32.61
36.5	28.14	27.68	27.06	26.52	25.75
100	23.62	23.00	22.39	21.77	21.08

d) Optical and electrical constants

Sapozhnikov, 1896

%	n_D	%	n_D
	16.5°		
100	1.35928	62.49	1.36620
97.27	.36219	59.41	.36590
95.03	.36332	52.54	.36404
92.28	.36404	49.94	.36329
89.97	.36479	45.00	.36173
87.58	.36517	42.472	.36053
85.13	.36581	39.99	.35943
82.165	.36689	37.49	.35843
80.02	.36638	34.67	.35698
78.26	.36665	30.00	.35445
77.21	.36683	25.12	.35150
76.3	.36681	20.39	.34824
74.37	.36683	15.03	.34475
70.00	.36683	10.05	.34046
67.49	.36656	5.41	.33708
64.98	.36638	0	.33320

Drude, 1897

%	n_D	%	n_D
	16°		
0	1.3335	80.2	1.3668
25.0	.3513	89.9	.3648
50.0	.3637	94.9	.3629
66.9	.3671	100	.3606

Homfray, 1905

%	n_D	%	n_D
	19°		
0.0	1.3335	80.2	.3668
25.0	.3513	89.9	.3648
50.0	.3637	94.9	.3629
66.9	.3671	100.0	.3606

Makovietski, 1908

mol %	%	n_D 16°	n_D 18°	n_D 20°
100	100	1.36077	1.35988	1.35900
98	99.37	.361035	.360056	.359172
96	98.72	.361302	.360323	.359348
94	98.06	.361569	.360590	.359524
91	97.02	.362014	.361035	.359880
88	95.94	.362459	.361480	.360412
85	94.81	.362904	.361935	.360857
82	92.90	.363349	.362370	.361302
78	91.95	.363927	.362993	.361925
74	90.17	.364550	.363571	.362548
70	88.26	.365095	.364150	.363171
66	86.21	.365680	.364690	.363705
62	84.02	.366132	.365095	.364150
50	76.31	.367130	.366220	.365320
46	73.40	.367320	-	-
44	71.69	.367360	-	-
30	58.00	.36595	1.36505	1.364195
20	44.61	.362210	.361035	.359967
15	36.25	.35838	.357588	.356973
10	26.36	.35278	.352138	.351635
5	14.50	.34448	.34431	.34390
0	0	.33328	.33321	.33313

Glazunow, 1914

mol %	n_D	mol %	n_D
	at room t.		
0	1.33232	50	1.36315
9.8	.35009	69.4	.36208
20.57	.35940	85.3	.35957
24.8	.36135	100	.35545
33.33	.36261		

Ernst, Litkenhous and Spanyer Jr., 1932

mol %	n_D	mol %	n_D
	25°		
100	1.3570	17.1	1.3579
73.6	.3616	11.8	.3529
55.4	.3638	7.0	.3470
42.0	.3645	3.3	.3401
31.8	.3635	0	.3330
23.7	.3609		

Tomonari, 1936

%	n_D	%	n_D
	20°		
100	1.35916	40	.35905
80	.36524	20	.34770
60	.36503	0	.33299

Griswold and Buford, 1949

mol%	n_D	mol%	n_D
	25°		
2.9	1.33881	42.7	.36322
8.0	.34726	46.4	.36290
8.2	.34688	53.0	.36271
11.9	.35281	63.5	-
13.6	.35357	65.2	1.36145
19.7	.35836	71.5	.36038
30.8	.36196	81.5	.35887
32.3	.36227		

Othmer, Chudgar and Levy, 1952

%	n_D	%	n_D
	25°		
100.0	1.35636	50.0	1.36078
90.0	.36020	40.0	.35745
80.0	.36270	30.0	.35272
70.0	.36348	20.0	.34671
60.0	.36283	10.0	.33983

Drude, 1897

%	ε	%	ε
	19°		
0	80.9	80.2	31.3
25.0	67.0	89.9	26.2
50.0	50.6	94.9	23.5
66.9	38.8	100	20.5

Graffunder and Heymann, 1931

mol%	ε	mol%	ε
	25°		
100	20.87	26.92	47.30
73.85	26.24	16.74	56.55
58.19	30.26	0	79.45
42.37	37.43		

Åkerlöf, 1932

%	ε				
	20°	25°	30°	40°	50°
0	80.37	78.34	76.73	73.12	69.85
10	74.84	73.02	71.37	68.07	65.01
20	68.38	66.98	65.34	62.28	59.45
30	62.48	61.04	59.47	56.77	54.17
40	56.00	54.60	53.23	50.82	48.52
50	49.52	48.22	46.99	44.81	42.81
60	42.93	41.80	40.75	38,86	37.04
70	36,51	35.70	34.63	33.03	31.44
80	30.33	29.62	28.74	27.50	26.20
90	24.61	23.96	23.38	22.32	21.26
100	19.56	19.10	18.67	17.80	16.98

Albright, 1937

%	ε	%	ε
	25°		
0.00	78.48	60.06	43.39
10.01	73.08	70.07	37.33
19.96	67.62	80.03	31.50
29.98	61.90	91.23	25.41
39.93	55.74	100.00	20.74
50.24	49.34		

Davis, Hughes and Jones, 1913

%	κ			
	15°	25°	35°	45°
12.5	25.9	33.3	40.8	49.2
25	25.2	32.3	40.2	38.6
37.5	19.4	12.0	15.0	18.2
50	13.4	17.1	20.9	23.9
62.5	11.3	14.3	17.7	21.2
75	7.3	9.0	0.8	12.8

Bajouline and Merson, 1939

vol %	ultra-sound absorption			
	38000k Hz	29500k Hz	26000k Hz	19000k Hz
	at room t.			
0	0.42	0.25	0.19	-
10	0.37	0.20	0.16	-
20	0.38	0.23	0.19	-
30	0.59	0.38	0.26	-
40	0.99	0.58	0.44	0.25
50	1.42	1.03	0.89	0.37
60	-	1.22	1.01	0.51
70	-	1.19	0.96	0.56
80	-	0.89	0.69	0.45
90	0.75	0.51	0.34	-
100	0.35	0.23	0.17	-

Smith and Smith, 1918

%	χ	%	χ
	20°		
100	-0.572	45.7	-0.650
90.4	.590	29.6	.670
74.8	.614	10.2	.697
59.8	.628	0	.714

Ranganadham, 1933

%	χ	%	χ
	at room t.		
100	-0.5968	42.60	-0.6728
65.16	.6446	40.26	.6792
56.11	.6639	0	.7200

Schwers, 1912

%	(α) magn. 5893 Å	5460 Å	4360 Å	t
100	0.7150	0.8444	1.3888	15.1
100	0.7001	0.8264	1.3562	31.5
23.799	0.8355	0.9893	1.6103	16.0
49.535	0.8122	0.9610	1.5722	15.3
73.552	0.7751	0.9184	1.5063	16.0
0	-	1.0000	-	4
0	0.844	0.9985	1.617	15.4
0	0.842	0.9963	1.613	29.2

Scharf, 1932

vol %	α magn.	vol %	α magn.
	λ = 5893 Å	20°	
0	2.141	50.00	2.085
9.77	2.119	59.97	2.066
19.98	2.120	80.08	1.979
39.90	2.114	100.00	1.852

α magn. in degrees

Thermal constants .

Sandonnini, 1912

%	U	%	U
80.96	0.698	30.00	0.955
70.09	0.795	25.00	0.570
59.71	0.845	19.81	0.981
50.00	0.889	15.20	0.985
44.44	0.915	10.00	0.990
40.00	0.930	5.00	0.994
35.00	0.945	0	1.000
33.33	0.951		

Sandonnini and Gerosa, 1925

%	U	Q mix (cal/g)
9.8	0.995	-379.5
20.0	0.975	-612.5
25.0	0.965	-676.8
30.0	0.950	-735.0
35.0	0.936	-745.0
40.0	0.924	-716.0
50.0	0.874	-635.0
60.0	0.841	-505.0

Sandonnini, 1925

%	U	%	U
	14-20°		
100	0.5248	50.22	0.8764
94.89	.5881	39.93	.9253
90.11	.6370	30.50	.9504
85.30	.6832	25.20	.9662
80.09	.7101	20.36	.9755
70.31	.7985	9.11	.9941
60.20	.8399	0.00	.9991

%	Q mix	%	Q mix
	15°		
80.96	-164.9	33.33	-765.0
70.09	-322.7	30.00	-755.5
59.71	-548.1	25.00	-711.2
50.00	-680.3	18.81	-632.7
44.40	-727.0	15.20	-509.8
40.00	-743.6	10.00	-394.5
35.00	-769.4	5.00	-200.5

Möbius, 1955

mol %	wt %	enthalpy
	20°	
0	0	0
5.19	15.01	-139.4
11.98	30.49	-185.5
20.09	44.76	-202.7
33.05	61.40	-158.6
40.46	68.66	-116.0
50.34	76.57	- 59.2
66.02	86.23	+ 17.24
72.28	89.37	+ 41.78
73.71	90.04	+ 47.64
80.88	93.17	+ 67.23
85.88	95.15	+ 66.51
92.08	97.40	+ 42.43
100	100	0

Water + Methyl ethylketone (C_4H_8O)

Heterogeneous equilibria

eqilibrium L+V

Marshall, 1906

mol %	p	p_2	p_1
100	619.7	619.7	0
95	680.0	590.0	90.0
90	714.0	568.0	146.0
85	735.0	547.0	188.0
80	748.0	532.0	216.0
75	757.0	519.0	238.0
70	760.4	508.0	252.4
66.06	760.9	502.7	258.2
65	760.9	501.6	259.3
60	759.8	497.0	262.8
58.72	759.4	495.8	263.6
52.02	759.4	495.8	263.6
0	273.0	0	273.0

%	b.t.		
	764.2 mm	763.5 mm	760 mm
0	-	100.13	100.0
0.4	-	99.3	99.2
1.2	-	97.3	97.2
2.7	-	93.1	93.0
4.6	-	87.4	87.3
6.4	-	83.3	83.2
8.2	-	80.8	80.7
9.9	-	78.8	78.7
11.5	-	77.2	77.1
11.9	76.64	-	76.47
12.9	-	76.2	76.1
14.0	75.43	-	75.26
15.9	74.54	-	74.37
15.9	74.52	-	74.35
16.3	74.40	-	74.23
16.6	74.23	-	74.06
16.9	74.22	-	74.05
17.2	74.12	-	73.95
17.5	74.03	-	73.86
17.8	74.05	-	73.88
17.8	74.00	-	73.83
18.2	73.94	-	73.77
18.8	73.93	-	73.76
19.6	73.91	-	73.74
21.3	73.91	-	73.74
50.0	73.87	-	73.70

p	b.t.	
	100 %	sat. sol. (L_2)
760	79.54	73.62
740	78.73	72.86
720	77.91	72.09
700	77.08	71.30
680	76.24	70.49
660	75.38	69.66
640	74.50	68.80
620	73.58	67.91
600	72.63	-
580	71.63	-
560	70.57	-
540	69.46	-

Marshall, 1906

%	b.t.	
	758.4 mm	760 mm
100	79.50	79.56
99.08	77.65	77.61
98.17	76.36	76.42
97.28	75.48	75.54
95.54	74.43	74.49
93.06	73.76	73.82
89.19	73.58	73.64
88.45	73.57	73.63
87.02	73.60	73.66
85.64	73.61	73.67
84.29	73.61	73.67

Az = 88.621 % b.t. = 73.59 d at 15° = 0.83956

Boeke and Hanewald, 1942

% V	b.t.	% V	b.t.
19.0	98.1	89.4	74.0
42.1	95.5	91.5	74.8
59.4	92.6	92.3	75.5
69.1	89.3	93.3	76.1
73.3	86.2	94.7	77.0
78.9	83.1	96.9	78.0
84.7	77.9	98.3	78.6
86.9	75.2		

%	b.t.	%	b.t.
0.1	99.0	2.3	87.5
0.3	98.0	2.8	86.5
0.4	97.0	3.2	85.5
0.5	96.0	3.7	84.5
0.8	95.0	4.2	83.5
1.1	94.0	4.5	82.5
1.2	93.0	6.0	81.0
1.4	92.0	7.0	80.0
1.5	91.0	9.2	78.0
1.9	90.0	9.9	77.0
1.9	89.5	11.5	76.0
2.2	89.0	14.7	75.0
2.2	88.5	16.7	74.0
	Az : 89 %	73.5°	
99.7	78.4	94.4	74.8
99.4	77.7	95.0	74.4
97.7	76.4	93.9	74.2
97.3	76.2	92.2	73.9
97.0	75.9	89.0	73.7
96.3	75.4	87.8	73.6

Othmer and Benenati, 1945

% L	% V	b.t.
	760 mm	
100	100	79.6
91.3	80.8	75.6
88.4	76.9	74.8
86.4	74.8	74.3
84.2	72.4	74.0
80.0	69.7	73.6
73.1	67.6	73.4
66.9	65.8	73.3
L_1+L_2	65.4	73.3
4.8	64.4	73.9
0	0	100
	500 mm	
100	100	66.3
90.6	80.8	63.5
86.0	76.3	62.7
83.7	74.1	62.5
77.8	71.2	62.2
73.1	69.7	62.0
70.4	69.1	62.0
66.9	68.1	62.0
L_1+L_2	68.0	62.0
3.4	65.2	64.8
0	0	88.6
	350 mm	
100	100	56.0
91.9	83.8	54.3
79.6	73.2	52.8
67.1	70.1	52.7
65.3	69.8	52.7
L_1+L_2	70.0	52.7
2.9	67.3	57.0
0	0	
	200 mm	
100	100	41.5
90.3	82.5	40.6
81.3	76.3	40.0
77.7	75.0	39.9
67.4	72.6	39.8
L_1+L_2	72.2	39.9
3.8	70.9	41.3
0	0	66.4

Lecat, 1949

%	b.t.
88.6	73.45 Az
100	79.6

Othmer, Chudgar and Levy, 1952

mol % L	mol % V	b.t.
	760 mm	
100	100	79.62
99.3	96.3	78.3
97.7	92.9	77.0
95.8	89.8	76.4
91.2	81.6	75.3
88.0	76.7	74.5
84.8	73.6	73.8
83.6	73.8	74.1
80.3	70.7	73.9
80.0	70.7	73.9
78.4	69.8	73.5
77.5	69.6	74.0
74.4	68.3	73.8
72.9	67.6	73.7
72.1	67.6	73.8
70.9	67.1	73.9
66.7	66.1	73.5
66.5	65.7	73.6
65.5	65.5	73.3
63.5	65.4	73.8
55.0	64.5	74.4
19.0	64.5	74.4
3.6	61.8	75.5
1.7	51.5	81.2
1.1	39.4	84.6
0.5	20.7	92.0
0.4	18.4	93.2
0.2	8.5	97.6

Rothmund, 1898

%	sat.t. lower	sat.t. higher
16.41	62.2	99.3
19.52	35.0	123.9
22.45	20.6	132.4
30.20	1.6	145.1
42.55	-25	150.9
50.49	-	145.8
62.56	-	142.6
74.52	-	126.8
79.59	-	112.6
86.01	-32	78.5
89.40	-19	43.8

Bruni, 1899

%	sat.t. lower	sat.t. higher
20.00	95.5	119
21.08	86.0	125
23.41	62.0	132
25.41	49.2	135.5
33.48	25.9	145
40.78	16.5	148
50.23	16.5	-
59.07	19.5	-
67.12	22.1	134.5
73.17	28.0	114
75.25	35.9	99.3

Marshall, 1906

t	% L_1	t	% L_2
64.7	18.15	15.0	88.20
65.5	18.08	73.6	85.05
73.6	18.00		
91.0	18.08		
93.5	18.15		

Minimum solubility of water in ketone at 15°

Randall and Mc Kenna, 1951

% L_1	% L_2	t
36.95	86.93	- 2.53
39.74	86.89	- 8.60
45.01	85.90	-18.51

Timmermans and Kohnstamm, 1910

C.S.T. : 137.7 Limits of P (1-155 kg/cm²)
dt/dp -0.065

Timmermans, 1911

P	C.S.T. higher	dt/dp	C.S.T. lower	dt/dp
		44 %		
10.00	141.00	-	-8.5 E	-
43.55	138.95	-0.061	-7.0	-
78.2	136.8	-0.062	-3.9	+0.089
113.75	134.75	-0.058	-1.0	+0.082
150.0	132.8	-0.054	+1.9	+0.080
		53.60 %		
10.0	140.9	-	-	-
43.55	138.8	-0.063	-	-
78.2	136.6	-0.064	-10.9	-
113.75	134.7	-0.054	- 7.6	+0.093
150.0	132.5	-0.061	- 4.2	+0.094
		62.35 %		
10.0	137.2	-0.059	-	-
43.55	134.9	-0.059	-	-
78.2	133.2	-0.059	-13.8	-
113.75	131.1	-0.059	-10.0	+0.107
150.0	128.9	-0.059	- 6.1	+0.110
		71.80 %		
10.0	125.4	-	-	-
43.55	123.4	-0.060	-	-
78.2	121.3	-0.061	-	-
113.75	119.4	-0.054	-9.2	-
150.0	117.3	-0.058	-6.0	+0.088

Timmermans and Kohnstamm, 1913

P	C.S.T.	dt/dp
225	+ 0.7	+0.096
250	+ 3.1	+0.094
300	+ 7.8	+0.086
350	+12.1	+0.079
400	+16.05	+0.074
450	+19.75	+0.069
500	+23.2	+0.070
600	+30.2	+0.071
700	+37.3	+0.068
800	+44.1	+0.072
900	+51.3	+0.103
1000	+61.6	+0.106
1050	+66.9	

Bruni, 1899

%	f.t.	%	f.t.
0.000	-0.4	47.46	-10.5
5.715	-2.1	54.05	-10.9
11.43	-3.8	66.22	-11.5
14.48	-4.7	74.61	-13.3
19.06	-6.4	79.13	-14.0
27.91	-8.3	87.18	-17.5
35.15	-9.4		

Timmermans, 1911

%	f.t.	%	f.t.
0	0	34.95	- 8.16
6.00	-1.70	40.50	- 8.46*
10.00	-2.82	85.90	- 8.48*
16.80	-4.64	89.00	- 9.28
24.75	-6.70	91.00	-10.54
26.60	-7.20	100	-86.6
29.95	-7.56		

E : -8.45   * $L_1 + L_2$

Timmermans, 1919

P kg	C.S.T.	f.t.
10	-21	- 8.5
113.75	-10	- 9.5
150	- 6.1	-10

Randall and Mc Kenna, 1951

%	f.t.	%	f.t.
1.5	-0.361	91.0	- 6.033
4.3	-0.879	93.5	- 8.807
8.0	-1.476	97.3	-16.53
10.2	-1.751	98.9	-26.09
14.6	-2.370	99.4	-40.10
23.4	-3.892	99.8	-58.75
35.7	-5.213	99.8	-61.28
38.9	-5.587	99.8	-65.53
86.9	-5.587	99.9	-86.64
90.7	-5.693		

Properties of phases

Marshall, 1906

%	d	%	d
	15°		
100	0.81005	88.532	0.83980
90.174	.83590	88.197	.84058
88.622	.83959		

Tarasov, Bering and Sidorova, 1936

%	d	π
	22°	
1	0.9986	46.2
3	.9959	45.5
5	.9933	45.0
7	.9908	44.5
9	.9881	43.6
11	.9859	42.95
12	.9844	42.77
13	.9829	42.63
14	.9815	43.07
15	.9802	43.04
16	.9786	42.89
17	.9770	42.87
19	.9742	42.5
23	.9676	42.3

Boeke and Hanewald, 1942

%	mol %	d
	21°	
0	0	0.9980
1.62	0.40	.9958
3.25	0.83	.9947
4.90	1.27	.9918
6.55	1.72	.9898
9.91	2.67	.9856
13.32	3.70	.9815
16.78	4.80	.9772
20.25	5.72	.9723
23.12	7.17	.9664
25.70	7.70	.9636
sat. sol. L_1		0.9621
sat. sol. L_2		0.8347
87.89	64.47	0.8349
89.10	66.80	.8223
90.27	69.88	.8294
90.80	70.90	.8276
92.66	75.95	.8226
93.90	79.20	.8202
95.09	82.89	.8168
97.53	90.78	.8104
100	100	.8050

Boeke and Hanewald, 1942

%	d	%	d
	21°		
0.1	0.9979	2.3	0.9950
0.3	.9976	2.8	.9943
0.4	.9975	3.2	.9938
0.5	.9973	3.7	.9932
0.8	.9970	4.2	.9926
1.1	.9966	4.5	.9922
1.2	.9965	6.0	.9902
1.4	.9961	7.0	.9890
1.5	.9960	9.2	.9862
1.9	.9955	9.9	.9854
1.9	.9955	11.5	.9796
2.2	.9952	14.7	.9773
2.2	.9952	16.7	
99.7	0.8057	94.4	0.8287
99.4	.8064	95.0	.8172
97.7	.8105	93.9	.8200
97.3	.8115	92.2	.8243
97.0	.8123	89.0	.8325
96.3	.8140	87.8	.8355

Teitelbaum, Ganelina and Gotelova, 1951

vol %	mol %	σ 0°	5°	10°
0	0	75.70	74.96	74.27
0.5	0.1	70.41	69.50	68.78
1	0.2	67.33	66.48	65.70
5	1.2	55.61	54.76	53.84
10	2.3	47.95	46.90	45.85
20	4.0	38.71	37.53	36.35
25	6.5	35.63	34.26	33.14
30	8.2	33.01	31.83	30.59
92	30.5	28.16	27.58	26.92
100	100	26.79	26.33	25.81

mol %	σ 15°	20°	25°	30°
0	73.50	72.75	71.98	71.21
0.1	68.12	67.33	66.74	66.02
0.2	64.98	64.26	63.47	62.68
1.2	52.73	51.48	50.57	49.58
2.3	44.67	43.82	42.64	41.72
4.0	35.37	34.06	33.01	31.77
6.5	32.10	31.11	30.06	28.75
8.2	29.28	28.23	27.05	-
30.5	26.40	25.61	25.22	24.60
100	25.09	24.63	23.84	23.25

mol %	σ 35°	40°	45°	50°
0	70.37	69.52	68.76	67.93
0.1	65.37	64.78	64.32	63.67
0.2	61.90	61.24	60.78	60.32
1.2	48.80	48.27	47.42	46.70
2.3	40.68	39.96	39.17	38.64
4.0	30.45	29.87	29.34	28.56
6.5	27.77	26.79	25.81	-
30.5	24.10	23.51	22.92	22.34
100	22.73	22.07	21.62	21.09

Water + Ketones

Lecat, 1949

2nd Comp. Name	Formula	b.t.	Az %	b.t.
Methyl-propylketone	$C_5H_{10}O$	102.35	86.5	83.0
Methyliso-propylketone	$C_5H_{10}O$	95.4	87	79
Methyl butylketone	$C_6H_{12}O$	127.2	-	90
Diethylketone	$C_5H_{10}O$	102.05	86	82.9

Water + Diethylketone ($C_5H_{10}O$)

Rothmund, 1898

%	sat.t.	%	sat.t.
2.55	homogeneous	88.55	130.6
3.30	42.9-82.8	94.36	89.0
4.09	28.4-124.2	95.81	65.0
6.39	3.0-162.1	97.72	33.5
81.23	180	97.81	28.9

Water + Ketones

Lecat, 1949

2nd Comp. Name	Formula	b.t.	Az %	b.t.
Heptanone	$C_7H_{14}O$	149	52	
Methyl-4-pentanone-2	$C_6H_{12}O$	117	75.7	87.9
Pentanedione-2,3	$C_5H_8O_2$	109	-	86
Isopropylidene acetone	C_5H_8O	129.5	65.2	91.8
Methyl-3-butene-3-one-2	C_5H_8O	99.5	-	83

Water + Acetylacetone ($C_5H_8O_2$)

Rothmund, 1898

%	sat.t.	%	sat.t.
14.87	27.05	47.39	87.25
16.19	34.00	57.96	87.12
18.05	40.90	68.21	85.55
22.19	56.45	79.41	79.42
29.42	74.50	90.08	57.65
32.65	78.57	93.14	44.25
39.68	84.30	95.81	21.65

Timmermans, 1911

C.S.T. : 85.1 Limits of P (5-105 kg/cm²)
dt/dp = -0.02

Schükarew, 1911

%	p	%	p
	91.2°		
0	504 (89°)	51.60	647.6
11.77	637.0	59.22	649.2
19.56	638.4	74.14	648.0
24.12	642.2	80.08	646.0
39.14	648.0	100	550.4

%	d	%	d
	91.2°		
100	0.72365	25.1	0.94153
79.1	.90793	15.7	.94382
64.7	.92098	0	.96453
37.1	.93773		

%	$\tau.10^6$	%	$\tau.10^6$
	90°-100°		
15.69	822	64.76	857
25.15	812	79.10	973
37.12	860	100	1144
50.00	813		

Schükarew, 1910

%	capillary constant mg/mm	%	capillary const. mg/mm
20.07	7.02	88° 60.42	6.95
28.75	6.92	69.47	6.76
39.85	6.95	80.00	6.47
48.88	7.01		

%	cooling heat for 1 g. sol. 100°-20°	88°-20°
89.34	48.97	40.26
82.00	53.48	45.26
76.80	55.48	46.58
65.24	60.76	50.23
52.52	65.79	54.69
21.91	73.66	62.20
13.30	75.56	64.23

Water + 2,2-Dialkoxy-ketones

Lecat, 1949

2nd Comp. Name	Formula	b.t.	Az b.t.
Dimethoxy-3 butanone	$C_6H_{12}O_3$	145	93-94
Diethoxy-3 butanone	$C_8H_{16}O_3$	163.5	95-96
Dipropoxy-3 butanone	$C_{10}H_{20}O_3$	196-197	98.5
Dibutoxy-3 butanone	$C_{12}H_{24}O_3$	228-230	97-99
Diisobutoxy-3 butanone	$C_{12}H_{24}O_3$	214-215	98
Dimethoxy-3 pentanone	$C_7H_{14}O_3$	162.5	96

Water + Ethylcellosolve ($C_4H_{10}O_2$)

Bublik and Kuchynka, 1956

mol % L	mol % V	b.t.
	740 mm	
99.7	99.4	99.9
96.6	95.2	98.2
83.9	89.8	98.2
81.6	89.0	98.4
73.0	86.4	98.8
56.2	82.6	101.0
43.8	77.6	103.4
	400 mm	
99.7	99.5	82.8
96.6	95.7	82.6
86.5	90.9	82.4
83.7	90.1	82.5
81.5	89.5	82.6
74.5	88.0	83.2
73.2	87.5	83.4
47.0	80.2	87.2
	200 mm	
98.6	97.7	66.5
96.6	96.6	66.4
83.7	90.9	66.7
81.4	90.3	66.8
78.1	89.5	66.9
74.4	88.4	67.4
61.4	85.1	68.6
43.3	79.4	70.8

mol %	n_D	mol %	n_D
	20°		
100.00	1.4079	15.99	1.3811
85.65	.4071	11.30	.3724
70.20	.4061	7.40	.3634
64.38	.4050	4.30	.3520
49.18	.4022	2.00	.3430
31.00	.3955	0.00	.3329

Cellosolve (glycol monoethylether) .

Water + 2-Acetylthiophene (C_6H_6OS)

Johnson, 1947

t	% L_1	% L_2
30	1.4	97.6

Water + Acetophenone (C_8H_8O)

Bingham, 1907

C.S.T. = 220

Water + Acetic anhydride ($C_4H_6O_3$)

Mishchenko and Cherbov, 1930

mol % L	mol % V	p	p(1+1)	p_2	p_1
		80°			
0	0	356.4	0	-	356.4
4.00	2.19	352.1	12.3	-	339.8
6.92	4.82	344.6	25.1	-	319.5
11.38	7.78	337.2	38.2	-	299.0
18.49	13.13	323.6	61.0	-	262.6
26.98	21.64	303.5	97.6	-	205.9
43.81	38.52	246.7	171.9	-	74.8
50.00	50.00	208.3	208.3	-	-
56.96	52.92	190.7	172.6	18.10	-
65.11	56.98	169.2	133.1	36.23	-
74.02	63.53	149.4	93.83	56.02	-
87.22	74.22	121.0	47.80	73.23	-
100	100	96	0	96	-

p_1 = vapour pressure of water in excess of (1+1)

Marek, 1955

t	% L_1	% L_2
0	5.98	97.44
18.2	11.95	97.82
38.7	22.20	98.12

Marek, 1956

mol % L_2	mol % L_1	sat.t.
87.05	1.11	0
88.80	2.34	18.2
90.19	4.79	38.7

Faust, 1912

mol %	d 0°	d 18°	d 72.5°
0	1.1059	1.0757	1.0179
50	.0850	.0509	0.9954
70	.0894	.0689	1.0174
75	.0904	.0699	.0194
85	.0804	.0604	.0159
100	0.9999	0.9989	0.9969

Kovalenko, Trifonov and Tissen, 1956

mol %	d 25°	d 40°
0	0.9965	0.9915
20	1.0615	1.0485
40	.0565	.0408
45	.0506	.0348
50	.0452	.0293
60	.0523	.0354
80	.0642	.0476
100	.0737	.0557

Faust, 1912

mol %	η 0°	η 18°	η 73°
0	1240	900	490
35	1470	1100	595
50	1950	1410	670
60	4440	2180	830
70	5110	2710	925
75	5010	2740	910
85	4400	2310	755
100	1760	1100	410

Kovalenko, Trifonov and Tissen, 1956

mol %	η 25°	η 40°
0	894	656
20	2189	1484
40	1852	1294
45	1497	1104
50	1193	921
60	1059	835
80	936	735
100	842	693

Trifonov, 1926

Magnetic rotation for D line at 15° isotherms present 2 branches intersecting at 50 mol % (acetic acid) and corres = ponding to the maximum deviation of the additivity of 12.6 % .

The branch anhydride-acid is a straight line .

The branch acid-water is a curve .

Trifonov and Cherbov, 1929

mol %	κ	mol %	κ
	17°		
100	0.1035	8.24	9.882
84.74	0.05758	6.50	13.09
68.65	0.02463	5.0	14.88
50.00	0	4.0	15.61
45.99	0.1395	1.12	13.74
30.13	0.5617	0.5	10.43
17.08	3.797	0	0

Water + Succinic anhydride ($C_4H_4O_3$)

van de Stadt, 1902

mol %	f.t.	mol %	f.t.
11.29	89.4	42.40	180.6
13.47	98.2	50.00	182.8 (1+1)
15.43	104.8	59.30	174.4
16.53	109.8	67.28	166.7
17.64	112.0	80.14	153.3
18.60	115.1	89.94	138.6
23.71	130.8	94.11	128
25.28	134.2	96.95	117
34.73	159.5	100.00	118.8-119
39.76	173.1		

Water + Phthalic anhydride ($C_8H_4O_3$)

van de Stadt, 1902

mol %	f.t.	mol %	f.t.
0.00036	0	56.73	189.5
0.0754	25	60.63	188.8
0.198	50	64.22	187.1
10.30	135.9	73.95	181.8
20.36	165.4	80.23	176.2
27.98	179.4	87.49	169.4
35.37	186.2	97.86	130.9
39.93	189.6	99.02	131
50.00	191.0	100.00	131.2
51.24	190.4	(1+1)	

Water + Esters
Lecat, 1949

2nd Comp.			Az	
Name	Formula	b.t.	%	b.t.
Ethylformate	$C_3H_6O_2$	54.15	97	54.1
Propylformate	$C_4H_8O_2$	80.85	96.4	71.9
Isopropylformate	$C_4H_8O_2$	68.8	97	65.0
Butylformate	$C_5H_{10}O_2$	106.8	85	83.8
Isobutylformate	$C_5H_{10}O_2$	98.2	91.8	80.4
Amylformate	$C_6H_{12}O_2$	132	71.6	91.6
Isoamylformate	$C_6H_{12}O_2$	123.8	77.7	89.7
Methylacetate	$C_3H_6O_2$	56.95	96.7	56.4
Ethylacetate	$C_4H_8O_2$	77.05	91.8	70.4
Propylacetate	$C_5H_{10}O_2$	101.6	86.8	82.2
Isopropylacetate	$C_5H_{10}O_2$	89.5	91	74.35
Butylacetate	$C_6H_{12}O_2$	126.0	72.0	90.2
sec. Butylacetate	$C_6H_{12}O_2$	112.0	86.6	86.6
Isobutylacetate	$C_6H_{12}O_2$	117.4	80.5	87.45
Amylacetate	$C_7H_{14}O_2$	142.1	64.1	94.05
Isoamylacetate	$C_7H_{14}O_2$	148.8	59	95.2
Methylpropionate	$C_4H_8O_2$	79.95	96.1	71.4
Ethylpropionate	$C_5H_{10}O_2$	99.1	86.8	82.2
Propylpropionate	$C_6H_{12}O_2$	123.0	73	89.3
Isopropyl-propionate	$C_6H_{12}O_2$	110.3	80.1	85.2
Butylpropionate	$C_7H_{14}O_2$	146.8	59	94.8
Isobutyl-propionate	$C_7H_{14}O_2$	138.0	65.25	92.95
Isoamyl-propionate	$C_8H_{16}O_2$	160.7	48	96.4
Methylbutyrate	$C_5H_{10}O_2$	102.65	86	82.7
Ethylbutyrate	$C_6H_{12}O_2$	121.5	75	88.2
Propylbutyrate	$C_7H_{14}O_2$	143.7	63.6	94.1
Butylbutyrate	$C_8H_{16}O_2$	166.4	46	97.2
Isobutylbutyrate	$C_8H_{16}O_2$	156.9	54	96.3
Isoamylbutyrate	$C_9H_{18}O_2$	182.05	36.5	98.05
Methylisobutyrate	$C_5H_{10}O_2$	92.5	91	77.9
Ethylisobutyrate	$C_6H_{12}O_2$	110.1	82	85.2
Propylisobutyrate	$C_7H_{14}O_2$	134.0	69.2	92:15
Isopropyl-isobutyrate	$C_7H_{14}O_2$	120.8	77	88.4
Isobutyl-isobutyrate	$C_8H_{16}O_2$	148.6	59.5	95.0
Isoamyl-isobutyrate	$C_9H_{18}O_2$	169.8	44	97.6
Ethylvalerate	$C_7H_{14}O_2$	145.45	60	94.5
Methylisovalerate	$C_6H_{12}O_2$	116.5	80.5	87.2
Ethylisovalerate	$C_7H_{14}O_2$	134.7	69.8	92.2
Propylisovalerate	$C_8H_{16}O_2$	155.7	54.8	96.2
Butylisovalerate	$C_9H_{18}O_2$	177.6	37	98.0
Isobutyl-isovalerate	$C_9H_{18}O_2$	171.2	42.0	97.7
Isoamyl-isovalerate	$C_{10}H_{20}O_2$	152.7	25.9	98.8
Methylcaproate	$C_7H_{14}O_2$	149.8	59	95.3
Ethylcaproate	$C_8H_{16}O_2$	167.7	45	97.4
Ethylheptanoate	$C_9H_{18}O_2$	188.7	28	98.5
Methylcaprylate	$C_9H_{18}O_2$	192.9	26	98.8
Ethylcaprylate	$C_{10}H_{20}O_2$	208.35	18	99.25
Methylpelargonate	$C_{10}H_{20}O_2$	213.8	15	99.45
Ethylpelargonate	$C_{11}H_{22}O_2$	227	12	99.6
Methylacrylate	$C_4H_6O_2$	80	92.8	71
Methylcarbonate	$C_3H_6O_3$	90.25	89	77.5
Ethylcarbonate	$C_5H_{10}O_3$	126.5	70	91
Isobutylcarbonate	$C_9H_{18}O_3$	190.3	26	98.6
Isoamylcarbonate	$C_{11}H_{22}O_3$	232.2	9	99.75
Methylfumarate	$C_6H_8O_4$	193.25	25.5	99.85
Ethylmaleate	$C_8H_{12}O_4$	223.3	11.8	99.65
Phenylacetate	$C_8H_8O_2$	195.7	24.9	98.9
Benzylformate	$C_8H_8O_2$	203.0	20	99.2
Benzylacetate	$C_9H_{10}O_2$	215.0	12.2	99.6
Bornylacetate	$C_{12}H_{20}O_2$	227.6	12.7	99.62
Methylbenzoate	$C_8H_8O_2$	199.4	20.8	99.08
Ethylbenzoate	$C_9H_{10}O_2$	212.5	16.0	99.4
Propylbenzoate	$C_{10}H_{12}O_2$	230.85	8.8	99.7
Butylbenzoate	$C_{11}H_{14}O_2$	249.0	5.8	99.88
Isobutylbenzoate	$C_{11}H_{14}O_2$	241.9	6.2	99.82
Isoamylbenzoate	$C_{12}H_{16}O_2$	262.0	3.5	99.9
Ethylphenyl-acetate	$C_{10}H_{12}O_2$	228.75	8.7	99.73
Methylcinnamate	$C_{10}H_{10}O_2$	261.9	4.5	99.9
Ethylcinnamate	$C_{11}H_{12}O_2$	272.0	3	99.93
Methylphthalate	$C_8H_{10}O_4$	283.2	2.5	99.95
Ethylphthalate	$C_{10}H_{14}O_4$	298.5	2	99.98

Water + Methyl acetate ($C_3H_6O_2$)

Marshall, 1906

mol %	b. t. 757.6 mm	b. t. 758.6 mm	b. t. 760 mm
100.0	-	56.93	56.98
85.1	-	56.43	56.48
65.7	-	56.78	56.83
65.6	-	57.03	57.08
65.3	-	57.05	57.10
64.7	-	57.07	57.12
64.1	-	57.11	57.16
63.4	-	57.16	57.21
58.8	-	57.17	57.22
53.3	-	57.17	57.22
17.20	57.21	-	57.30
10.62	57.20	-	57.29
9.59	57.21	-	57.30
9.30	57.23	-	57.32
9.14	57.24	-	57.33
9.01	57.26	-	57.35
8.75	57.31	-	57.40
8.38	57.39	-	57.48
7.61	57.75	-	57.84
6.82	58.38	-	58.47
6.01	59.28	-	59.37
5.20	60.65	-	60.74
4.37	62.7	-	62.8
3.53	65.6	-	65.7
2.67	69.8	-	69.9
1.79	75.8	-	75.9
0.91	86.8	-	86.9
0	99.9	-	100.0

mol %	p	p_2	p_1
	57°		
100	760.5	760.5	0
90	776	698	78
85	774	678	96
75	765	654	111
65	754	633	121
9.2	754	633	121
5.0	660	535	124
0	129	0	129

Rabinovich, Fedorov and al., 1955 (fig.)

t	mol % L_1	mol % L_2
0	8	78
20	8	73
40	8	67
60	8	60
89	9	51
100	13	39
107 (C.S.T.)	23	23

Richards and Chadwell, 1925

%	d	%	d
	20°		
6.544	1.00055	19.449	1.00318
9.257	1.00139	100	0.93347
13.084	1.00244		

%	π	%	π
	19.81°		
0	43.25	17.46	40.44
5.43	41.58	17.80	40.20
10.16	40.34	20.56	40.64
13.86	40.12	20.98	41.11
14.84	40.27	100	38.48

Chadwell, 1927

mol %	d	mol %	d
	25°		
0.000	0.99707	14.295	1.00045
3.122	.99792	16.259	.00060
4.215	.99824	73.329	0.93823
7.113	.99901	94.975	.93532
9.010	.99947	96.752	.93250
11.077	.99997	98.270	.93004
13.793	1.00038	100	.92740

mol %	η	mol %	η
	25°		
0.000	894.9	14.295	1127.4
3.122	950.5	16.259	1145.8
4.215	971.1	73.329	431.1
7.113	1021.4	94.975	408.4
9.010	1050.4	96.752	387.9
11.077	1086.9	98.270	372.0
13.793	1118.1	100	359.4

Chadwell and Asnes, 1930

%	d	η (water=1)
	9.98°	
0.0	0.9997	1.0000
3.857	1.0016	.0994
5.768	.0025	.1460
9.048	.0039	.2193
13.047	.0055	.3024
14.417	.0060	.3245
20.776	.0080	.4065
23.117	.0090	.4236
98.901	0.9485	.3341
100.000	.9466	.3261

Water + Ethyl acetate ($C_4H_8O_2$)

Marston, 1853

17.5° 7.88 % and 97.16 % (L_1 and L_2)

Merriman, 1913

Az

p	%	b.t.	b.t. (100%)
25.0	96.40	- 1.90	+ 0.61
50.0	96.04	+10.05	12.75
78.5	95.70	18.45	21.47
82.2	95.50	19.38	22.38
150.0	94.61	31.35	34.93
176.0	94.40	34.82	38.61
250.0	93.72	42.55	46.87
329.8	93.15	49.06	53.84
420.0	92.76	54.94	60.27
446.2	92.72	56.44	61.87
606.0	92.09	64.33	70.50
613.8	92.02	64.60	70.82
745.0	91.65	69.83	76.55
760.0	91.53	70.38	77.15
875.0	91.24	74.38	81.51
903.5	91.14	75.23	82.45
984.3	90.99	77.66	85.19
1177.9	90.54	82.95	90.99
1415.0	90.10	88.49	97.16
1441.3	90.06	89.08	97.80

%	sat.t.	%	sat.t.
97.64	1.6	96.28	36.7
97.49	7.1	96.10	39.6
97.29	13.3	96.06	40.7
97.10	17.7	95.78	46.0
97.04	20.0	95.38	53.1
96.74	25.9	95.10	58.0
96.40	33.4		
10.08	0	7.50	25
9.44	5	7.17	30
8.82	10	6.90	35
8.30	15	6.65	40
7.85	20		

Griswold, Chu and Winsauer, 1949

mol % L	mol % V	b.t.	p_2	p_1
94.0	84.9	74.1	680	277
95.8	86.9	74.6	692	285
97.6	92.2	75.8	722	297

Wade, 1905

t	d		t	d
25	0.9122	sat.sol.	20	0.9113
23	.9119		17.8	.9111
22	.9116		15.7	.9106
21	.9115			

Chadwell, 1907

%	d	%	d
	25°		
0.000	0.99707	(L_1+L_2)	
0.676	.99704	97.451	0.89891
0.892	.99702	98.342	.89745
1.815	.99698	99.110	.89610
3.041	.99692	100.000	.89451
3.284	.99690		

Merriman, 1913

t	L_1	d	t	L_2
0.0	1.0035	sat.sol.	0.0	0.9281
6.1	.0020		6.8	.9200
11.5	.0009		7.8	.9190
14.5	.0005		9.6	.9173
16.4	.0002		10.3	.9169
17.05	.0001		13.3	.9133
18.0	.0000		15.1	.9116
20.0	0.9997		20.0	.9072
20.4	.9998		25.1	.9030
20.65	.9996		31.0	.8990
22.0	.9996		38.1	.8951
22.05	.9995			
24.3	.9991			
26.1	.9989			
32.5	.9985			
40.3	.9979			

Chadwell, 1907

%	η	%	η
	25°		
0.000	894.9	4.809	1004.3
0.676	909.5	6.170	1035.7
0.892	912.9	97.541	449.5
1.815	935.4	98.342	439.5
3.041	955.2	99.110	431.2
3.284	967.8	100.000	424.4

Water + Amyl valerate ($C_{10}H_{20}O_2$)

Pierre, 1872

Az : 35 % V (L_1 + L_2)

Water + Ethyl palmitate ($C_{18}H_{36}O_2$)

Neirinckx, 1953

mol %	f.t.	mol %	f.t.
100	22.9	5	20
98	22.5	2	8
50	22.5	0	0
12	22.5		

Water + Ethylene diacetin ($C_6H_{10}O_4$)

Schwers, 1911

t	d	t	d
	100 %		
14.1	1.10885	54.5	1.06538
34.3	.08807	73.7	.04426
	81.5555 %		
16.2	1.09570	61.3	1.04940
34.0	.07788	74.1	.03520
52.9	.05825		
	18.2643 %		
21.7	1.02402	61.6	1.00145
33.0	.01856	71.5	0.99476
53.2	.00690		
	13.6073 %		
19.4	1.01869	61.1	0.99727
33.6	.01261	73.4	.98918
52.3	.00260		
	9.8108 %		
19.5	1.01306	61.5	0.99305
33.2	1.00787	71.9	.98668
52.5	0.99838		
	4.8383 %		
18.3	1.00599	60.3	0.98873
33.6	1.00118	71.2	.98220
53.5	0.99219		

Water + Esters

Lecat, 1949

	2nd Comp.		Az		
Name	Formula	b.t.	%	b.t.	Dt
Methoxyglycol acetate	$C_5H_{10}O_3$	144.6	48.5	97.0	+3.9
Ethoxyglycol acetate	$C_6H_{12}O_3$	156.8	45	97.4	-
Butoxyglycol acetate	$C_8H_{16}O_3$	171.75	40	97.8	-
Ethoxydiethylene glycol acetate	$C_8H_{16}O_4$	218.5	24	99.2	-
Butoxydiethylene glycol acetate	$C_{10}H_{20}O_4$	245.3	8	99.8	-

Water + Ethyl carbonate ($C_5H_{10}O_3$)

Harkins and Humphrey, 1916

σ (interfacial) = 13.00 25°

Water + Methyl oxalate ($C_4H_6O_4$)

Skrabal, 1917

%	f.t.	%	f.t.
100	53.5	16.7	48.0
97.7	50.5	15.8	44.5
93.3	48.0	13.0	41.5
76.2	48.0	12.5	38.0
64.4	48.0	10.7	36.0
46.5	48.0	9.1	37.0
36.3	48.0	6.3	15.5
29.8	48.0	6.6	21.5
23.1	48.0	5.0	9.5
19.2	48.0	4.1	1.5
17.7	48.0		

Water + Methyl methacrylate ($C_4H_6O_2$)

Woods, 1947

p	b.t.
78.4 %	
200	49
760	86-92

Water + Chloroesters

Lecat, 1949

2nd Comp.			Az	
Name	Formula	b.t.	%	b.t.
Methyl-chloracetate	$C_3H_5O_2Cl$	131.4	63.85	92.7
Ethyl-chloroacetate	$C_4H_7O_2Cl$	143.5	54.88	95.2
Propyl-chloroacetate	$C_5H_9O_2Cl$	162.3	42.5	97.1
Butyl-chloroacetate	$C_6H_{11}O_2Cl$	181.9	24.53	98.12
Isobutyl-chloroacetate	$C_6H_{11}O_2Cl$	174.4	35.82	97.8
Isoamyl-chloroacetate	$C_7H_{13}O_2Cl$	195.2	22.24	98.95

Water + Methyl dimethoxysuccinate ($C_8H_{12}O_6$)

Purdie and Barbour, 1901

%	d	$(\alpha)_D$
	20°	
100	1.1751	+87
19.9988	-	78.71
10.0315	-	78.45
0	0.9982	-

Water + 4,6-Dimethyl-1,2-pyrone ($C_7H_8O_2$)

Wiley and Smith, 1951

t	%	
	L_1	L_2
59.7	32.5	32.5
62.5	26	40
65	25	44
67.5	24.5	46
70	24.5	48
72.5	25	49
75	25.5	49.5
77.5	26	49
80	27	47.5
82.5	28	45
85	31	40
86.3	34.5	34.5

Water + Methyl sulfate ($C_2H_6O_4S$)

Lecat, 1949

%	b.t.
0	100
27	98.6 Az
100	189.1

Perkin, 1886

mol %	d		
	15°	20°	25°
0	0.99913	0.99823	0.99707
50	1.33227	1.32522	1.31997

50 mol % 22.8° (α) magn. = 0.7602

LIX. WATER + NITROGEN DERIVATIVES

Water + Hydrocyanic acid (HCN)

Shirado, 1927

%	p	p_2	p_1
	18°		
4.996	129.7	114.4	15.3
9.703	228.1	214.3	13.8
14.488	300.8	288.3	12.5
19.675	352.0	338.1	13.9
20.054	355.7	346.9	8.8
26.90	390.8	375.5	15.3
33.01	411.9	396.4	15.5
47.64	434.1	416.7	17.4
47.93	435.6	415.2	20.4
49.20	433.0	420.2	12.8
60.23	445.4	435.2	10.2
60.76	446.3	437.4	8.9
69.67	453.3	441.3	12.0
70.93	458.0	446.7	11.3
79.54	476.0	467.1	8.9
80.18	478.4	468.9	9.5
88.55	505.1	497.9	7.2
89.64	510.2	(492.0)	(18.2)
100.00	569.7	(525.2)	(44.5)
100.00	566.2	-	-

Fredenhagen and Wellmann, 1932

mol %	p_2	p_1	p
	18°		
0	-	15.5	15.5
3.4	114.4	15.14	129.5
6.5	214.0	14.86	288.8
10.1	287.0	14.60	301.6
14.0	341.0	14.35	355.3
14.3	344.0	14.33	358.3
19.7	380.0	14.11	394.1
24.7	396.4	14.0	410.4
37.8	419.0	13.75	432.7
38.1	419.3	13.74	433.0
39.3	419.4	13.72	433.1
50.2	430.0	13.39	443.3
50.7	430.5	13.37	443.8
60.5	443.7	12.92	456.6
62.0	446.2	12.84	459.0
72.1	466.0	11.70	477.7
73.1	468.9	11.55	480.4
83.8	497.9	9.0	506.9
100	566.2	-	566.2

Opikhtina and Frost, 1936

b.t.	% L	% V	p
26.7	99.8	99.6	771.4
27.2	98.3	99.3	771.4
27.3	98.3	99.2	769.8
28.1	95.8	98.0	769.5
28.9	93.0	98.1	772.1
29.1	91.4	98.3	759.5
30.6	85.2	97.7	769.7
32.6	72.8	98.0	759.5
33.5	67.6	97.4	769.7
35.5	49.2	96.9	776.8
37.0	36.3	96.5	776.8
39.5	24.5	96.9	757.2
41.1	22.9	94.6	764.4
45.9	16.7	95.7	752.6
60.1	8.6	90.6	744.1
76.3	4.1	75.3	756.9
85.5	2.5	54.9	755.9
92.2	1.3	38.3	757.2
95.2	0.8	30.2	757.2
98.0	0.4	17.1	764.4

Coates and Hartshorne, 1931

mol %	f t	E	mol %	f t	E
0.81	- 0.9	-	28.99	-15.7	-
1.27	- 1.4	-	31.76	-15.9	-23.40
3.09	- 3.5	-23.31	36.82	-16.0	-23.43
3.53	- 3.8	-	50.96	-16.4	-23.34
7.76	- 7.7	-	59.24	-17.3	-23.36
9.03	- 9.4	-23.43	66.96	-19.3	-23.36
9.89	- 9.9	-	70.4	-21.1	-23.44
13.87	-12.4	-	73.0	-22.6	-23.36
14.25	-12.8	-23.41	73.7	-22.9	-23.39
19.36	-14.45	-	79.7	-22.5	-23.45
23.87	-15.3	-23.40	88.9	-19.4	-23.4
24.11	-15.3	-	95.9	-15.8	-23.5 -25.0
24.61	-15.4	-23.41	98.5	-14.4	-24.5 -26.0
26.29	-15.5	-23.43	100	-13.5	-
28.03	-15.7	-23.41			

Peiker and Coffin, 1933

mol %	f.t.	mol %	f.t.	mol %	f.t.
100	-13.5	60	-17.5	20	-14.5
90	-19	50	-16.5	10	-10
80	-22.5	40	-16=	0	0
70	-21	30	-16		

Ure, 1817 - 1822

%	d	%	d	%	d
		0°			
1	0.9988	7	0.9869	12	0.9716
2	.9974	8	.9840	13	.9681
3	.9958	9	.9811	14	.9645
4	.9940	10	.9781	15	.9608
5	.9919	11	.9749	16	.9570
6	.9895				

Gray and Hulbirt, 1918

d_t	%					
	22°	21°	20°	19°	18°	17°
0.690	99.7	-	-	-	-	-
.692	99.1	99.5	99.9	-	-	-
.694	98.5	98.9	99.3	99.7	-	-
.696	97.9	98.3	98.7	99.1	99.5	99.9
.698	97.3	97.7	98.1	98.5	98.9	99.3
.700	96.7	97.1	97.5	97.9	98.3	98.7
.702	96.1	96.5	96.9	97.3	97.7	98.1
.704	95.5	95.9	96.3	96.7	97.1	97.5
.706	94.9	95.3	95.7	96.1	96.5	96.9
.708	94.3	94.7	95.1	95.5	95.9	96.3
.710	93.7	94.1	94.5	94.9	95.3	95.7
.712	93.1	93.5	93.9	94.3	94.7	95.1
.714	92.6	93.0	93.4	93.8	94.2	94.6
.716	92.0	92.4	92.8	93.2	93.6	94.0
.718	91.4	91.8	92.2	92.6	93.0	93.4
.720	90.8	91.2	91.6	92.0	92.4	92.8
.722	90.2	90.6	91.0	91.4	91.8	92.2
.724	89.6	90.0	90.4	90.8	91.2	91.6
.726	89.0	89.4	89.8	90.2	90.6	91.0
.728	88.5	88.9	89.3	89.7	90.1	90.5
.730	87.9	88.3	88.7	89.1	89.5	89.9
.732	87.3	87.7	88.1	88.5	88.9	89.3
.734	86.7	87.1	87.5	87.9	88.3	88.7
.736	86.2	86.5	87.0	87.4	87.8	88.2
.738	85.6	86.0	86.4	86.8	87.2	87.5
.740	85.0	85.4	85.8	86.2	86.6	86.9
.742	84.4	84.8	85.2	85.6	86.0	86.3
.744	83.8	84.2	84.6	85.0	85.4	85.7
.746	83.3	83.7	84.1	84.5	84.8	85.1
.748	82.7	83.1	83.5	83.9	84.2	84.5
.750	82.1	82.5	82.9	83.3	83.6	83.9
.752	81.6	82.0	82.4	82.7	83.0	83.3
.754	81.0	81.4	81.8	82.1	82.4	82.7
.756	80.4	80.8	81.2	81.5	81.8	82.1
	16°	15°	14°	13°	12°	11°
0.698	99.7	100	-	-	-	-
.700	99.1	99.6	100	-	-	-
.702	98.5	98.9	99.4	99.8	-	-
.704	97.9	98.4	98.8	99.2	99.6	100
.706	97.3	97.8	98.2	98.6	99.0	99.4
.708	96.7	97.1	97.6	98.0	98.4	98.8
.710	96.1	96.5	97.0	97.4	97.8	98.2
.712	95.5	95.9	96.4	96.8	97.2	97.6
.714	95.0	95.3	95.8	96.2	96.6	97.0
.716	94.4	94.7	95.2	95.6	96.0	96.4
.718	93.8	94.1	94.6	95.0	95.4	95.8
.720	93.2	93.6	94.0	94.4	94.8	95.2
.722	92.6	93.0	93.4	93.8	94.2	94.5
.724	92.0	92.4	92.8	93.2	93.6	93.9
.726	91.4	91.8	92.2	92.6	93.0	93.3
.728	90.9	91.2	91.6	92.0	92.4	92.8
.730	90.3	90.6	91.0	91.4	91.8	92.2
.732	89.7	90.0	90.4	90.8	91.2	91.6
.734	89.1	89.4	89.8	90.2	90.6	91.0
.736	88.6	88.8	89.2	89.6	90.0	90.4
.738	87.9	88.2	88.6	89.0	89.4	89.8
.740	87.3	87.6	88.0	88.4	88.8	89.2
.742	86.7	87.0	87.4	87.8	88.2	88.6
.744	86.1	86.4	86.8	87.2	87.6	88.0
.746	85.5	85.8	86.2	86.6	87.0	87.4
.748	84.9	85.2	85.6	86.0	86.4	86.8
.750	84.3	84.6	85.0	85.4	85.8	86.2
.752	83.6	84.0	84.4	84.8	85.2	85.6
.754	83.1	83.5	83.8	84.2	84.6	85.0
.756	82.5	82.9	83.2	83.6	84.0	84.4
	10°	9°	8°	7°	6°	5°
0.706	99.8	-	-	-	-	-
.708	99.2	99.6	100	-	-	-
.710	98.6	99.0	99.4	99.9	-	-
.712	98.0	98.4	98.8	99.3	99.7	-
.714	97.4	97.8	98.2	98.7	99.1	99.6
.716	96.7	97.2	97.6	98.1	98.5	99.0
.718	96.1	96.6	97.0	97.5	97.9	98.4
.720	95.5	96.0	96.4	96.9	97.3	97.8
.722	94.9	95.3	95.8	96.2	96.6	97.1
.724	94.3	94.7	95.1	95.6	96.0	96.5
.726	93.7	94.1	94.5	95.0	95.4	95.9
.728	93.1	93.5	93.9	94.3	94.7	95.3
.730	92.5	92.9	93.3	93.7	94.1	94.7
.732	91.9	92.3	92.7	93.1	93.5	94.0
.734	91.3	91.7	92.1	92.5	92.9	93.4
.736	90.7	91.1	91.5	91.9	92.3	92.8
.738	90.0	90.5	90.9	91.3	91.7	92.2
.740	89.5	89.9	90.3	90.7	91.1	91.6
.742	88.9	89.3	89.7	90.1	90.5	91.0
.744	88.3	88.7	89.1	89.5	89.9	90.4
.746	87.7	88.1	88.5	88.9	89.3	89.8
.748	87.1	87.5	87.9	88.3	88.7	89.1
.750	86.5	86.9	87.3	87.7	88.1	88.5
.752	85.9	86.3	86.7	87.1	87.5	87.9
.754	85.3	85.7	86.1	86.5	86.9	87.3
.756	84.7	85.1	85.5	85.9	86.3	86.7

Shirado, 1927

%	d	%	d
	18°		
5.052	0.9914	52.00	0.8508
9.770	.9828	55.37	.8418
10.04	.9825	60.23	.8281
14.58	.9719	60.76	.8261
19.70	.9580	69.50	.7945
20.29	.9565	70.93	.7917
26.90	.9364	79.54	.7590
33.01	.9155	80.18	.7574
39.26	.8976	88.55	.7282
46.01	.8747	89.64	.7258
47.68	.8648	100.00	.6913

Bredig and Shirado, 1927

%	d	%	d
	18°		
5.052	0.9914	52.00	0.8506
9.770	.9827	55.37	.8416
10.04	.9824	60.23	.8279
14.58	.9718	60.76	.8259
19.70	.9579	69.50	.7942
20.29	.9565	70.93	.7914
26.90	.9363	79.54	.7587
33.01	.9154	80.18	.7572
39.26	.8975	88.55	.7279
46.01	.8745	89.64	.7255
47.68	.8646	100.00	.6909

Walker and Marvin, 1926

d_t	% 0°	5°	10°	15°	20°	25°
0.682	-	-	-	-	-	100.0
.683	-	-	-	-	-	99.7
.684	-	-	-	-	-	99.4
.685	-	-	-	-	-	99.1
.686	-	-	-	-	-	98.8
.687	-	-	-	-	-	98.5
.688	-	-	-	-	-	98.2
.689	-	-	-	-	-	97.9
.690	-	-	-	-	99.8	97.7
.691	-	-	-	-	99.5	97.4
.692	-	-	-	-	99.2	97.1
.693	-	-	-	-	98.9	96.8
.694	-	-	-	-	98.6	96.5
.695	-	-	-	-	98.3	96.2
.696	-	-	-	-	98.0	96.0
.697	-	-	-	99.9	97.7	95.7
.698	-	-	-	99.6	97.5	95.4
.699	-	-	-	99.3	97.2	95.1
.700	-	-	-	99.0	96.9	94.8
.701	-	-	-	98.7	96.0	94.5
.702	-	-	-	98.4	96.3	94.2
.703	-	-	-	98.1	96.0	94.0
.704	-	-	99.9	97.8	95.7	93.7
.705	-	-	99.6	97.5	95.4	93.4
.706	-	-	99.3	97.2	95.1	93.1
.707	-	-	99.0	96.9	94.8	92.8
.708	-	-	98.7	96.6	94.5	92.5
.709	-	-	98.4	96.3	94.2	92.2
.710	-	-	98.1	96.0	94.0	92,0
.711	-	100.0	97.8	95.7	93.6	91.7
.712	-	99.7	97.5	95.4	93.3	91.4
.713	-	99.4	97.2	95.1	93.0	91.1
.714	-	99.1	96.9	94.8	92.7	90.8
.715	-	98.8	96.6	94.5	92.5	90.5
.716	-	98.4	96.3	94.2	92.2	90.3
.717	-	98.1	96.0	93.9	91.9	90.0
.718	100.0	97.8	95.7	93.6	91.6	89.7
.719	99.6	97.5	95.4	93.3	91.3	89.4
.720	99.3	97.2	95.1	93.0	91.0	89.1
.721	99.0	96.9	94.8	92.7	90.7	88.8
.722	98.7	96.6	94.5	92.4	90.4	88.5
.723	98.4	96.3	94.2	92.1	90.1	88.2
.724	98.1	96.0	93.9	91.8	89.8	87.9
.725	97.8	95.7	93.6	91.5	89.5	87.7
.726	97.4	95.4	93.2	91.2	89.2	87.4
.727	97.1	95.1	92.9	90.9	88.9	87.1
.728	96.8	94.8	92.6	90.6	88.6	86.8
.729	96.5	94.5	92.3	90.3	88.3	86.5
.730	96.2	94.2	92.0	90.0	88.0	86.2
.731	95.9	93.8	91.7	89.7	87.7	85.9
.732	95.6	93.5	91.4	89.4	87.4	85.6
.733	95.3	93.2	91.1	89.1	87.1	85.3
.734	95.0	92.9	90.8	88.8	86.8	85.1
.735	94.6	92.6	90.5	88.5	86.6	84.8
.736	94.3	92.3	90.2	88.2	86.3	84.5
.737	94.0	92.0	89.9	87.9	86.0	84.2
.738	93.7	91.7	89.6	87.6	85.7	83.9
.739	93.4	91.4	89.3	87.3	85.4	83.6
.740	93.1	91.1	89.0	87.0	85.1	83.3
.741	92.8	90.8	88.7	86.7	84.8	83.1
.742	92.4	90.5	88.4	86.4	84.5	82.8
.743	92.1	90.2	88.1	86.1	84.2	82.5
.744	91.8	89.9	87.8	85.8	83.9	82.2
.745	91.5	89.6	87.4	85.5	83.6	81.9
.746	91.2	89.3	87.1	85.2	83.3	81.6
.747	90.9	89.0	86.8	84.9	83.0	81.3
.748	90.6	88.7	86.5	84.6	82.7	81.0
.749	90.3	88.4	86.2	84.3	82.4	80.7
.750	90.0	88.1	85.9	84.0	82.1	80.4

Opikhtina and Frost, 1936

%	d	%	d
0°			
3.30	0.9970	40.07	0.9051
7.20	.9924	51.35	.8780
11.43	.9863	63.00	.8351
22.30	.9604	75.57	.7989
30.30	.9444	84.88	.7632
34.00	.9281	100.00	.721

Opikhtina and Frost, 1936

%	η	%	η
0°			
3.30	1833	40.07	843
7.20	1819	51.35	649
11.43	1732	63.00	475
22.30	1313	75.57	378
30.30	1070	84.88	301
34.00	1000	100.0	269

Bussy and Buignet, 1867

%	U	Q mix
18.5°		
0	1	-
50	0.8317	-894.08
100	0.5881	-

Water + Nitriles

Lecat, 1949

	2nd Comp.		Az	
Name	Formula	b.t.	%	b.t.
Acetonitrile	C_2H_3N	82	85	76
Propionitrile	C_3H_5N	97.0	76	81.5
Butyronitrile	C_4H_7N	118	69	87.5
Isobutyronitrile	C_4H_7N	103	77	82.5
Acrylonitrile	C_3H_3N	77.3	88	71
Crotonitrile	C_4H_5N	119	-	85

Water + Acetonitrile (C_2H_3N)

Benjamin, 1932

20°

mol %	p	mol %	p
12.0	72.7	68.2	109.5
31.0	99.0	75.0	107.7
35.7	102.6	80.7	103.5
50.0	107.0	100.0	70.0
65.0	109.2		

Vierk, 1950

mol %	p 20°	p 30°	p 40°	p 50°	p 60°
0	17.5	31.8	55.3	92.5	149.4
6	61.5	97.5	152.1	226.8	319.6
12	70.0	112.8	169.4	253.3	373.2
21	73.6	117.0	181.9	270.1	399.9
31	74.0	118.3	184.1	274.3	405.8
55	74.4	119.5	185.8	278.4	410.0
71	74.8	120.0	186.0	282.0	416.1
79	74.9	119.8	186.0	284.3	400.6
87	75.0	119.2	186.1	276.0	388.7
95	74.5	118.5	181.8	271.7	376.3
100	70.9	111.8	170.8	253.9	368.0

mol %	p	p_1	p_2
	30°		
3	80.0	29.6	50.4
7	101.0	28.3	72.7
17	115.0	26.5	88.5
44	119.0	24.2	94.8
65	120.0	24.0	96.0
87	119.4	20.3	91.9
92	119.0	15.5	103.5
	20°		
7	63.0	13.0	50.0
15	71.5	12.2	59.3
19	73.2	11.2	62.0
35	74.2	10.5	63.7
65	74.7	10.5	64.2
76	74.9	9.7	65.2
92	74.8	8.3	66.5

Othmer and Josefowitz, 1947

b.t.	mol % L	mol % V
	760 mm	
81.5	100.0	100.0
79.2	96.0	87.9
78.8	95.0	85.1
77.9	91.4	83.5
77.1	88.0	79.5
76.3	79.5	74.0
76.0	72.6	72.6 Az
76.3	59.7	69.3
78.2	34.9	64.5
78.4	27.9	62.7
79.3	18.8	58.5
80.9	9.9	55.0
85.2	3.9	44.7
90.1	1.5	32.0
91.7	0.6	27.9
95.0	0.2	18.0
97.8	0.0	7.9
99.0	0.0	2.6
100.0	0.0	0.0
	300 mm	
54.4	100.0	100.0
53.2	99.0	95.3
52.3	98.0	91.4
51.6	91.4	83.5
51.2	86.0	80.8
51.1	70.0	77.2
51.4	52.0	74.6
51.7	31.1	73.2
54.0	11.8	68.6
64.7	3.0	42.0
73.5	0.8	10.7
75.8	0.0	0.0
	150 mm	
36.7	100.0	100.0
36.6	98.0	95.5
36.0	95.5	91.0
34.6	90.0	86.0
34.1	77.2	83.5
34.5	51.3	81.0
36.7	16.8	73.2
44.8	5.2	50.7
58.7	0.3	6.4
60.2	0.0	0.0

Az : 10 mm -12° 95 mol %

Maslan and Stoddard Jr., 1956

% L	% V	b.t.
	760 mm	
6.8	48.5	90.3
11.8	65.9	84.2
20.7	73.5	80.9
21.7	73.9	80.7
35.2	77.3	78.0
64.5	78.0	77.2
65.4	80.9	-
79.0	82.4	76.8
56.5	79.4	77.2
83.2	81.2	77.0
85.8	84.0	76.8
90.2	86.3	77.0
95.5	91.5	78.1
98.4	95.5	79.4

Benjamin, 1932

mol %	sat.t.	mol %	sat.t.
18.6	-5.8	50.0	-1.4
29.6	-2.0	67.7	-3.0
40.0	-1.5		

C.S.T. = -1.4 50.0 mol % 69.5 %

Ewert, 1937

mol %	sat.t.	mol %	sat.t.
16.3	-8.9	43.3	-1.2
18.9	-4.0	57.9	-4.8
26.6	-1.8	58.3	-4.8
32.9	-0.9		

Benjamin, 1932

mol %	f.t.	E
4.8	- 5.8	-44.4
9.8	-10.0	-47.7
15.8	-11.0	-48.2
22.6	-11.0	-48.4
30.5	-11.0	-48.4
39.8	-11.8	-48.4
50.6	-11.0	-48.4
63.7	-11.6	-47.6
79.7	-11.0	-47.4
87.2	-26.8	-
95.6	-42.8	-
100.0	-44.8	-

Ewert, 1937

mol %	f.t.	E
10.0	- 4.2	-
14.5	- 9.0	-
14.6	- 9.2	-
16.3	-13.2	45.4
51.3	-13.2	45.8
70.0	-12.7	-
79:2	-13.3	45.3
86.0	-21.4	45.8
100	-45.2	-

Traube, 1896

%	d	%	d
	15°		
2.726	0.99570	12.506	0.98064
5.247	.99282	16.557	.97427
8.222	.98865	100.000	.7891

Othmer and Josefowitz, 1947

%	d	%	d
	20°		
100.0	0.786	26.3	0.953
97.1	0.793	22.8	0.963
90.3	0.803	8.1	0.988
83.0	0.821	3.7	0.992
73.7	0.843	0.0	0.998
50.0	0.897		

Vierk, 1950

mol %	d	mol %	d
	20°		
0	0.9982	23	0.9213
3	.9888	25	.9128
6	.9769	29	.9026
8	.9733	31	.8956
9	.9669	45	.8641
12	.9567	70	.8170
17	.9402	87	.7943
22	.9240	100	.7829

Maslan and Stoddard Jr., 1955

%	d	%	d
	25°		
4.75	0.9873	59.96	0.8653
9.62	.9887	78.77	.8218
14.53	.9709	87.02	.8014
18.72	.9608	92.43	.7898
19.63	.9594	95.86	.7826
29.70	.9368	100	.7743
39.15	.9144.		

Vierk, 1950

mol %	η	mol %	η
	20°		
0	1006.0	37	797.9
3	1091.1	43	722.0
6	1123.8	61	594.8
12	1105.5	70	538.9
22	1029.2	87	465.7
29	933.8	100	383.0

Somogyi, 1916

%	t	a^2 (mg/mm)
16.557	17.4	4.365
11.506	17.4	4.483
8.272	17.6	5.460
5.247	17.6	5.981
2.726	17.9	6.479
1.363	18.0	6.842

mol %	a^2
1.0	6.210
0.5	6.730
0.25	7.000

Vierk, 1950

mol %	σ	mol %	σ
	20°		
0.0	72.60	13.0	35.22
0.5	69.02	16.9	33.38
1.0	65.45	18.6	32.40
1.5	63.03	20.9	31.84
2.1	59.46	23.1	31.56
2.8	56.89	25.4	31.01
3.5	53.75	31.3	30.61
4.4	49.32	39.6	30.02
5.5	47.61	48.9	29.67
6.7	45.19	65.5	29.02
8.4	41.91	100.0	28.37
10.0	39.06		

Benjamin, 1932

mol %	$n_{He\ j}$	mol %	$n_{He\ j}$
	20°		
0	1.33279	60.0	1.34491
20.0	.33943	80.0	.34433
40.0	.34391	100.0	.34392

Vierk, 1950

mol %	n_D	mol %	n_D
	20°		
0	1.3330	49	1.3478
7	.3414	60	.3473
10	.3430	61	.3472
16	.3459	69	.3470
31	.3478	79	.3462
35	.3479	100	.3444
42	.3479		

Sakhanov, 1917

%	ε
at room t.	
100	36.1
50	59.7
0	81.7

Vierk, 1950

mol %	Q mix	mol %	Q mix
	20°		
1.9	- 5.34	45.0	+185.07
3.3	- 3.94	53.3	+198.63
5.6	+ 3.54	61.8	+200.93
9.9	+ 31.68	74.5	+197.40
14.8	+ 67.60	84.1	+167.30
19.8	+100.46	90.7	+125.16
39.0	+169.83	95.1	+ 74.44

Water + Propionitrile (C_3H_5N)

Rothmund, 1898

mol %	sat.t.	mol %	sat.t.
9.01		51.90	113.20
10.22	35.10	61.06	112.60
11.76	55.95	72.13	105.25
12.06	59.60	86.23	69.32
13.64	71.22	88.62	58.85
16.51	86.87	92.84	34.32
32.96	110.70	96.00	4.47
39.11	112.75		

Timmermans and Kohnstamm, 1910

C.S.T. = 111.0   Limits of P (5-165 kg/cm²)

dt/dp = -0.02

Schükarew, 1910

C.S.T. = 110.2°

%	cooling heat (cal/gr) 153-20°	135-20°	112-20°
85.60	94.33	84.17	63.02
74.30	102.6	91.53	70.92
64.66	109.5	97.67	74.23
50.88	117.11	104.87	79.72
20.20	128.8	114.0	85.70
18.90	130.3	115.50	88.14
11.0	131.77	115.52	89.37

Water + Adiponitrile ($C_6H_8N_2$)

Silberman, 1953

%	sat.t.	%	sat.t.
97.0	0.0	38.6	100.5
95.8	10.0	31.9	98.5
94.1	22.2	19.9	90.1
92.5	32.1	13.4	77.4
89.8	48.3	10.6	67.1
86.2	64.4	8.6	50.9
81.1	77.1	6.5	32.3
69.2	93.9	5.5	21.6
60.0	100.1	4.6	10.0
51.3	101.0	4.2	0.0
45.2	101.0		

Water + Acrylonitrile (C_3H_3N)

Davis and Wiedeman, 1945

%	sat.t.		%	sat.t.
100	-82	L_1	93.5	52.5
99.75	-60		93.2	55
99.5	-40		92.2	60.5
97.75	0		91.8	64
97.5	+10		91	68
97	20		90.8	69
96.5	25		90.2	73
96	33		88	86
95	40		87.2	91
94.9	42		86	95
94.2	48			
12.8	90	L_2	8	40
11.8	85		7.9	38
11	80		7.8	35
10	72		7.5	27
9.6	66		7.4	25
9.3	62.5		7.3	20
9	60		-	0
8.7	52.5		7.25	- 5
8.4	49			

Water + Cyanamide (CH_2N_2)

Pratolongo, 1914

%	f.t.	%	f.t.
0	0	44.99	-10.76
1.38	- 0.62	47.60	- 8.92
2.58	- 1.13	52.12	- 5.81
3.38	- 1.48	56.80	- 2.49
6.31	- 2.60	60.35	+ 0.28
9.42	- 3.96	66.37	+ 5.12
14.98	- 6.19	69.70	+ 7.85
18.40	- 7.58	77.20	+14.50
24.70	-10.19	81.71	+19.32
26.09	-10.74	87.15	+25.60
28.62	-11.88	89.41	+28.58
30.90	-12.72	91.84	+32.00
33.32	-13.93	95.31	+35.78
36.86	-15.39	96.77	+37.90
38.75	-15.59	97.32	+38.60
40.19	-14.39	98.24	+40.12
41.67	-13.23	100	+42.90
43.27	-11.80		

E : 37.8 % -16.6°

Water + Ethylene cyanide ($C_4H_4N_2$)

Schreinemakers, 1897

%	f.t.	%	f.t.
5.49	- 1.2	91.95	-
5.77	0	93.57	24
9.47	17	95.06	29-30
10.23	18.5	100	54.5

Schreinemakers, 1897

sat.t.	% L_1	% L_2
18.5	2.5	72
20	2.7	70.7
39	-	56.4
45	5.97	-
53.5	10.04	30.7
55	13.2	27.6

Timmermans, 1907

C.S.T. = 54°

Timmermans and Kohnstamm, 1910

C.S.T. = 52.3 Limits of P (10-160 kg/cm²)

dt/dp = -0.003

Water + Trimethylene cyanide ($C_5H_6N_2$)

Serwy, 1933

%	sat.t.	%	sat.t.
94.0	5.6	46.75	68.3
88.4	34.85	44.79	68.2
79.3	55.3	41.95	68.1
70.0	64.3	35.08	66.7
61.88	67.5	32.08	65.5
58.01	68.1	28.83	63.6
55.04	68.2	21.71	56
50.74	68.25	10.5	21.7
48.83	68.3 C.S.T.		

water + Methylamine (CH_5N)

Felsing and Thomas, 1929

t	p	t	p
		13.39 %	
20.83	62.1	59.96	525.0
29.89	130.3	69.97	780.2
39.88	216.7	79.98	1135.3
49.92	342.0	89.91	1607.4
		22.86 %	
1.43	73.2	49.91	694.8
20.84	242.4	60.00	1022.5
29.95	300.8	69.97	1446.5
40.00	466.1	75.40	1738.0
		36.15 %	
- 0.45	190.6	39.87	1028.8
+ 9.93	309.1	49.91	1453.2
19.80	473.4	59.98	1724.0
29.87	708.9	71.92	2951.0
		48.60 %	
10.7	734.3	52.60	2703
15.15	773.0	58.56	3220
26.99	1182.3	67.59	4078
40.68	1852	73.54	4871
49.04	2419		

m	t	p_2
0.5101	0.8	0.81
0.7935	0.8	1.28
1.1241	0.8	1.79
0.9147	20.0	2.79
0.7989	20.0	4.42
1.1177	20.0	6.18
0.1368	35.0	1.66
0.5839	35.0	7.41
0.8126	35.0	10.33
1.0646	35.0	13.70
0.5199	45.0	13.67
0.8314	45.0	10.96
0.1813	45.0	17.42
1.0464	45.0	22.15
1.2647	45.0	26.50
0.1873	55.0	26.12
0.5373	55.0	17.85
0.8548	55.0	28.48
1.0223	55.0	34.18
1.2264	55.0	42.30
0.1302	75.0	10.01
0.2421	75.0	18.83
0.5300	75.0	41.72
0.8403	75.0	66.30
1.2632	75.0	100.00

Pickering, 1893

%	f.t.	%	f.t.
27.08	-40.65	14.70	-12.0
26.90	-38.45	14.68	-12.8
25.45	-35.9	13.95	-12.1
24.39	-30.8	12.23	- 9.2
23.96	-30.95	12.07	- 9.6
22.69	-28.4	10.29	- 7.45
22.33	-25.7	9.69	- 7.1
21.49	-25.25	8.74	- 5.55
20.14	-22.0	7.26	- 4.9
19.85	-20.2	6.43	- 4.0
18.83	-19.65	6.03	- 3.7
17.25	-16.6	4.82	- 2.92
16.97	-15.7	3.68	- 2.45
16.54	-14.05	3.60	- 2.45
15.69	-14.4	2.67	- 1.6
	(3+1)		
50.28	-50.55	40.75	-37.45
49.18	-47.5	38.83	-36.0
49.08	-48.05	36.76	-36.7
47.37	-43.6	36.09	-35.4
47.07	-43.55	33.49	-35.95
45.90	-43.05	32.76	-37.0
45.69	-41.9	31.45	-36.6
43.96	-40.55	29.55	-39.7
43.09	-39.85	28.83	-39.9
41.19	-37.2		

Somerville, 1931

mol %	f.t.	mol %	f.t.
3.12	- 3.39	13.79	-23.68
4.37	- 4.94	16.23	-31.61
5.83	- 6.96	18.43	-42.6
7.16	- 8.97	20.40	-39.8
8.18	-10.65	23.87	-37.8
9.74	-13.58	30.75	-40.5
10.56	-15.36	37.32	-47.6
11.98	-18.69		
		(3+1)	

Water + Ethylamine (C_2H_7N)

Guthrie, 1878

%	f.t.	%	f.t.
0.9901	- 0.4	30	- 8.1
5	- 2.0	32.4	- 8.0
10	- 4.7	35	- 8.2
15	- 8.4	40	-10.1
20	-13.3	50	-16.4
20.64	-13.9 E		
25	- 9.5		

Pickering, 1893

%	f.t.	%	f.t.
	Amine		
100	-79.0	96.55	-82.9
	(1+2)		
92.96	-82.8	77.48	-76
92.56	-81.0	76.50	-74.9
92.51	-82.0	73.60	-78.0
89.39	-75.6	72.87	-84.0
89.18	-75.0	69.58	-83.0
88.21	-74.8	64.14	-80.0
85.80	-73.3	62.78	-75 (?)
83.99	-71.0	59.45	-59 (?)
83.47	-70.5	56.39	-59 (?)
81.08	-73.3	54.33	-59
78.70	-70.5	52.05	-47
	(x+1)		
59.69	-56.85	53.21	-47.0
58.50	-70.0	51.74	-54.0
56.32	-55.35	48.69	-46.2
54.18	-57.2		
	(11+2)		
53.21	-24.35	31.22	- 7.75
49.84	-18.0	30.78	- 7.4
47.34	-15.75	30.177	- 7.7
46.22	-17.65	28.33	- 7.73
44.55	-13.35	27.15	- 8.03
43.67	-13.9	26.33	- 8.38
42.63	-11.0	25.89	- 8.3
41.49	-10.78	24.35	- 9.4
40.64	-11.4	23.38	- 9.38
39.90	- 9.1	22.09	-11.65
38.10	- 9.33	21.90	-10.9
36.98	- 9.1	21.03	-10.95
35.12	- 7.75	20.05	-13.3
34.19	- 7.98	19.01	-13.25
33.92	- 8.1		
	H_2O		
17.51	-10.95	12.64	- 7.15
17.46	-10.75	9.51	- 4.85
17.41	-12.25	7.12	- 3.15
13.96	- 8.7	6.97	- 3.28
13.94	- 7.43	4.33	- 1.2

Somerville, 1931

mol %	f.t.	mol %	f.t.
1.53	- 1.58	9.07	-13.30
2.99	- 3.27	9.31	-12.74
4.40	- 5.12	10.74	-10.33
5.33	- 6.44	14.23	- 7.83
6.04	- 7.52	15.83	- 7.73
6.87	- 9.04	16.71	- 7.85
7.61	- 10.36	18.62	- 8.54
8.08	- 11.42	21.92	-10.38
8.55	- 12.49	25.12	-13.02
8.65	- 12.64	27.87	-17.5
8.70	- 12.70	28.51	-18.5
	(11+1)	(3+2)	

Baud, Gay and Ducelliez, 1914

mol %	d	mol %	d
	17.5°		
0	0.9988	44.84	0.8184
1.75	.9890	59.75	.7642
5.56	.9682	64.50	.7530
10.63	.9510	64.58	.7523
12.69	.9432	86.73	.7027
13.34	.9394	95.46	.6880
22.69	.8977	95.95	.6871
26.50	.8849	100	.6800
30.29	.8694		

Schnell, 1927

N	σ	N	σ
	4 - 6°		
0	74.7	8.38	35.1
1.50	57.3	10.4	31.1
2.66	50.4	13.6	25.8
5.74	42.1	15.7	21.9

Baud, Gay and Ducelliez, 1914

mol %	Q dil (by mole amine)	mol %	Q dil (by mole amine)
2.03	416	48.61	4172
2.39	416	50.003	4732
4.65	656	50.86	4682
6.19	760	52.17	4840
12.78	1600	52.83	4462
16.87	2218	53.48	4740
18.39	2518	54.89	4867
19.35	2725	57.94	4804
23.64	3053	61.20	4953
25.16	3105	63.13	5105
28.48	3259	63.76	5271
30.84	3563	65.13	5115
34.81	3656	69.57	5389
42.35	3990	75.97	5542
43.85	4258	79.19	5780
44.13	4329	84.75	6035
44.41	4447	91.33	6341
45.18	4349 (sic.)	93.3	6377
45.35	3981 (sic.)	93.81	6422
45.72	4184	93.91	6431
45.96	4229	93.92	6506
47.22	4164	94.4	6356
47.37	4360	94.5	6222

Water + Propylamine (C_3H_9N)

Pickering, 1893

%	f.t.	%	f.t.
	(1+2)		
94.44	-67.0	82.41	-63.7
93.62	-65.4	79.42	-64.1
90.25	-62.5	78.68	-67.8
88.59	-61.4	74.99	-71.5
86.37	-60.7	74.67	-71.0
83.69	-61.1		
	H_2O		
22.45	- 9.65	15.34	- 6.25
21.10	-10.9	10.44	- 3.65
20.12	- 7.65	5.90	- 2.05
	(8+1)		
69.67	-70.0 (?)	41.64	-15.62
66.89	-66.0 (?)	40.43	-15.65
64.94	-70.0	38.02	-14.30
64.88	-66.0	36.95	-14.3
63.09	-37.1	34.83	-13.85
61.36	-31.9	33.18	-13.65
59.83	-31.1	31.71	-13.45
57.06	-26.0	29.13	-13.64
53.83	-21.75	28.54	-13.55
53.42	-22.6	25.72	-13.55
49.05	-20.1	25.51	-13.4
47.52	-18.95	22.96	-13.63
44.79	-17.6		
	(8+1) second series		
64.02	-35.25	37.03	-14.0
60.71	-30.25	33.86	-13.93
57.52	-25.2	31.55	-13.45
53.85	-22.0	29.64	-13.4
49.21	-19.5	28.01	-13.2
44.53	-16.8	25.46	-13.5
40.70	-15.43		

Water + Isopropylamine (C_3H_9N)

Pickering, 1893

%	f.t.	%	f.t.
	(x+1)		
68.76	-75 ?	63.37	-62.5
67.90	-66.5 ?	63.15	-59.5 ?
65.50	-59.5	62.00	-66
64.72	-72	60.17	-62
	H_2O		
14.05	- 5.4	9.51	- 3.7
13.93	- 5.9	6.70	- 2.25
10.11	- 3.3	4.38	- 1.5
	(8+1)		
63.15	-24.0	38.16	- 5.35
59.24	-20.1	37.40	- 5.0
58.20	-20.2	36.64	- 4.82
57.55	-18.5	34.81	- 4.82
56.82	-18.5	34.77	- 4.55
55.63	-16.8	34.58	- 4.6
54.94	-16.35	33.30	- 4.55
53.71	-14.5	32.38	- 4.2
52.96	-13.85	31.14	- 4.48
52.18	-13.1	30.91	- 4.55
50.85	-11.4	30.61	- 4.32
49.93	-10.15	30.14	- 4.25
49.10	- 9.8	28.56	- 4.63
48.89	- 9.65	28.26	- 4.1
48.74	- 9.15	27.24	- 4.6
46.77	- 8.27	26.14	- 4.88
46.46	- 7.9	25.61	- 4.1
45.86	- 8.0	23.87	- 5.3
45.55	- 7.55	23.66	- 5.3
44.68	- 7.3	22.97	- 4.75
42.85	- 6.45	20.97	- 5.75
42.27	- 6.05	20.88	- 6.22
41.98	- 6.5	20.42	- 5.7
41.89	- 6.3	18.24	- 8.0
39.91	- 5.5	18.07	- 7.37
39.85	- 5.57	17.49	- 7.9
38.40	- 5.4	16.15	- 8.87

Isambert, 1887

mol%	limits of pressure (in atm.)	π	Dv %
100	5-7 and 8- 45	120	-
12.5	4-6 " 13 -50	42.5	7
4.7	8-11 " 11- 44	34.2	-

0.5 N 8° Q diss = 6.25 cal/N

Water + n-Butylamine ($C_4H_{11}N$)

Le Blanc and Rohland, 1896

% (1+1)	d	n_D
	20°	
8.78	0.9839	1.3429
15.41	0.9722	1.3497
29.80	0.9405	1.3629

Water + Isobutylamine ($C_4H_{11}N$)

Pickering, 1893

%	f.t.	%	f.t.
	H_2O		
71.48	-45.5	35.90	- 6.7
70.32	-38.5	33.90	- 6.85
69.96	-43.7	32.99	- 6.55
67.89	-33.0	31.34	- 5.6
67.34	-31.25	31.15	- 6.3
66.73	-33.2	30.64	- 5.75
64.62	-26.5	28.59	- 5.77
64.56	-25.8	26.20	- 5.53
63.24	-25.8	26.07	- 5.07
61.56	-21.9	23.79	- 5.25
60.91	-21.3	23.62	- 5.25
59.46	-20.05	22.04	- 4.8
58.43	-18.8	21.40	- 5.05
57.15	-17.8	18.87	- 4.8
55.31	-17.47	17.54	- 4.3
54.97	-17.5	16.08	- 4.5
52.90	-14.7	15.11	- 4.6
51.90	-14.25	14.05	- 4.1
50.73	-14.0	13.18	- 3.42
49.08	-12.3	12.15	- 3.5
48.99	-12.3	10.41	- 3.0
48.40	-12.25	9.45	- 2.25
45.97	-10.26	8.86	- 2.27
45.61	-10.35	8.22	- 1.9
44.43	- 9.85	7.47	- 2.05
42.74	- 9.1	6.47	- 1.35
41.20	- 8.15	6.09	- 1.65
41.18	- 8.5	4.80	- 1.25
39.58	- 7.7	4.01	- 0.65
39.15	- 8.0	3.59	- 0.95
36.86	- 7.35	2.54	- 0.7
36.04	- 7.0		

%	f.t.	%	f.t.
	(x+1)		
81.92	-76.0 (?)	75.33	-63.2
81.29	-76.0	73.36	-62.5
78.66	-68.0	72.57	-56.8
78.23	-67.5		

Water + sec. Butylamine ($C_4H_{11}N$)

Pickering, 1893

%	f.t.	%	f.t.
	(x+1)		
67.96	-63.0	64.48	-50.5
66.63	-56.3	62.34	-37.3
	H_2O		
66.63	-39.3 (?)	31.77	- 8.4
64.48	-35.7	31.54	- 9.1
60.99	-33.2	28.81	- 8.5
60.38	-36.1	27.96	- 7.6
60.13	-33.5	26.70	- 7.32
58.53	-29.15	26.06	- 8.1
57.30	-27.8	24.37	- 7.0
57.00	-25.75	23.31	- 7.6
55.44	-21.95	20.75	- 7.15
54.91	-22.2	19.86	- 5.9
53.37	-20.3	19.78	- 6.05
52.61	-19.55	18.20	- 6.15
51.09	-19.25	15.98	- 5.15
49.19	-17.1	14.86	- 4.15
49.15	-16.02	13.69	- 4.35
47.93	-16.5	13.35	- 3.77
46.06	-14.44	11.61	- 3.75
45.05	-14.25	9.91	- 2.35
44.13	-13.75	9.68	- 3.02
42.62	-12.3	8.49	- 2.12
42.14	-13.05	8.00	- 2.35
39.50	-11.7	6.63	- 2.0
39.27	-11.5	6.60	- 1.25
39.11	-10.65	5.66	- 1.3
36.73	-10.5	5.27	- 1.5
35.46	- 9.4	4.22	- 0.65
34.11	- 9.9	4.05	- 1.1
33.80	- 9.4	2.86	- 0.8

Water + Amylamine ($C_5H_{13}N$)

Pickering, 1893

%	f.t.	%	f.t.
	(x+1)		
87.72	-75 (?)	75.73	-47.2
83.25	-73.2	75.45	-50.0
82.44	-69.3	72.91	-41.9
82.14	-67.20	72.80	-40.3
80.01	-64.0	72.38	-37.5
79.26	-61.2	70.24	-33.4
77.86	-57.0	69.21	-28.0
77.52	-53.3	68.59	-26.7
	H_2O		
67.53	-23.4	40.84	- 2.4
66.28	-19.9	38.71	- 2.25
64.84	-18.1	38.49	- 2.15
64.82	-16.7	35.85	- 2.15
63.52	-14.6	35.22	- 1.9
62.37	-12.8	35.05	- 1.95
61.18	-11.95	32.97	- 1.95
60.44	-10.65	29.95	- 1.4
60.18	-10.75	29.86	- 1.8
58.22	- 8.95	29.69	- 1.5
57.57	- 8.55	26.73	- 1.43
56.81	- 7.95	23.70	- 1.43
56.42	- 7.95	22.30	- 0.95
54.64	- 6.65	20.78	- 1.4
54.00	- 6.4	19.98	- 1.15
52.83	- 5.85	17.56	- 1.3
52.53	- 5.75	16.26	- 0.82
50.59	- 4.77	14.27	- 1.2
50.19	- 4.77	11.31	- 1.25
48.59	- 4.3	11.05	- 1.03
48.35	- 4.0	9.01	- 0.75
46.82	- 3.73	8.62	- 1.2
45.78	- 3.35	6.47	- 1.05
45.04	- 3.35	6.09	- 0.63
43.53	- 3.03	5.91	- 0.85
43.04	- 2.93	4.66	- 0.85
40.88	- 2.62		

Water + Octylamine ($C_8H_{19}N$)

Ralston, Hoerr and Hoffman, 1942 (fig.)

mol %	f.t.	m.t.	f.t. complex	E	tr.t.
100	- 1.0	-	-	-	-
90	- 2.0	-5.0	-	-	-
80	- 3.0	-5.0	-	-	-
70	- 4.0	-5.0	-	-	-
57	- 5.0	-5.0	-	-	-
45	+ 5.0	-5.0	-	-	-
40	+11	-5.0	-5.0	-13(3+1)	-
35	18	+7	-6	-13	-
30	23	14	-9	-13	-
24	30	24	-13	-13	-
20	32	29	-6	-13*	-
14	(6+1)34.6	34.6	-0.4	- 1	-14.5
10	31	26	-0.3	- 1	-14.5
6	24	12	-1	- 1	-14.5
0	0	0	-0.5	- 1	-14.5

* (6+1) II

Ralston, Hoerr and Hoffman, 1942 (fig.)

mol %	sat.t.	mol %	sat.t.
33	92	10	41
30	78	8	39
25	63	2.5	28
20	50	0	31
15	42		

Water + Dodecylamine ($C_{12}H_{27}N$)

Ralston, Hoerr and Hoffman, 1942 (fig.)

mol %	f.t.	m.t.	f.t. complex	E
100	28	-	-	-
90	26	24.4	-	-
77	24.4	24.4	-	-
70	27	24.4	-	-
60	30	24.4	-	-
55	32	26	22	15 (2+3)
40	36	33	16	15
34.5	36.5	35	15	15
33	36.5	35.5	15.4	15 (2+1)
30	41	36.5	15	12
27.5	43	39	12	12
20	48	48	14	12 (4+1)
1	48	48	-	-
0.005	- 0.011	- 0.011	-	-

mol %	tr.t. 1	tr.t. 2	tr.t. 3
28	37	24	-
20	38	24	15
1	38	24	15

Water + Octadecylamine ($C_{18}H_{39}N$)

Ralston, Hoerr and Hoffman, 1942

mol %	f.t.	m.t.	f.t. complex	E
100	52.5	-	-	-
91	50	50	-	-
80	55	50	-	-
75	57	50	-	-
70	58	52	49.5	42 (1+3)
60	59	54	47	42
50	61	58	46	42
34	62	62	42	42 (2+1)
33	62	62	43	42
1	62	-	-	-

tr.t. (30-1 mol %) 43°

mol %	sat.t.	mol %	sat.t.
74	100	40	64
70	91	33	62
60	79	1	62
50	70		

mol %	sat.t.	mol %	sat.t.
49	92	20	48
40	77	1	48
30	62		

Water + Dimethylamine (C_2H_7N)

Pickering, 1893

%	f.t.	%	f.t.
71.26	-67.5 E		
	(x+1)		
59.33	-45	43.00	-44.6
49.59	-44.8	40.79	-42.1
49.00	-45.1	39.26	-36.8
47.36	-47.6	38.74	-37.15
46.47	-40.8	36.57	-31.4
45.22	-46.6	34.58	-25.0
43.15	-36.8		
	H_2O		
19.75	-17.07	13.09	- 8.02
19.02	-11.95	10.54	- 4.9
18.01	-13.25	9.74	- 4.92
16.75	-13.42	6.23	- 2.62
15.74	-10.85	6.16	- 2.8
15.16	- 8.05	3.69	- 1.72
	(7+1)		
42.03	-36.2	28.55	-17.2
38.55	-32.0	27.05	-16.6
35.68	-20.8	26.00	-16.95
35.64	-23.9	25.65	-16.9
34.58	-20.5	24.35	-17.5
32.85	-18.7	23.32	-17.0
32.60	-19.05	22.69	-17.3
32.37	-18.2	22.16	-17.1
30.80	-18.3	20.59	-17.42
29.51	-16.45	19.75	-18.12
29.39	-17.5		
	(8+1)		
50.26	- 8.07	31.87	- 6.9
47.97	- 7.48	30.10	- 7.0
45.76	- 7.33	28.52	- 7.13
43.70	- 6.92	26.96	- 7.3
41.54	- 6.8	25.45	- 7.85
39.57	- 6.62	24.03	- 8.6
37.58	- 6.57	22.73	- 9.25
35.61	- 6.5	21.50	- 9.8
33.70	- 6.7		

Somerville, 1931

mol %	f.t.	mol %	f.t.
3.52	- 3.94	12.05	-16.59
4.73	- 5.61	12.95	-16.49
5.85	- 7.50	13.36	-16.71
6.75	- 9.14	13.93	-16.82
8.34	-12.62	14.53	-17.18
8.44	-12.90	16.44	-18.50
10.02	-17.35	17.84	-20.09
10.40	-17.33	18.64	-21.04
10.99	-16.98	20.55	-37
11.86	-16.58	27.59	-44
		(7+1)	

Somogyi, 1916

%	t	a^2
13.555	16.6	3.755
9.619	16.6	4.191
5.250	16.6	4.762
2.765	16.4	5.299
1.720	16.9	5.712

mol %	a^2
1.0	4.440
0.5	5.100
0.25	5.700

Water + Diethylamine ($C_4H_{11}N$)

Copp and Everett, 1953

mol %	p 38.35°	p 49°	p 56.80°
10	165	300	450
20	200	330	480
40	250	400	570
60	305	500	670
80	360	560	750
100	405	600	790

Guthrie, 1878

%	sat.t.	%	sat.t.
12.64	180	37.80	128
15.02	128	45.42	134.5
16.30	121.8	62.35	154
20.94	121	75.76	170
36.89	123		

Lattey, 1905

%	sat.t.	%	sat.t.
21.73	154.5	39.63	143.5
22.65	151.7	45.78	144.15
25.04	147.5	48.89	145
25.06	147	51.71	146.8
28.60	144.4	54.24	148.5
30.93	144	54.78	150.3
34.03	143.2	58.59	152.3
38.18	143.5	58.99	156

Guthrie, 1878

%	f.t.	%	f.t.
5	- 1.1	25	- 9.1
10	- 2.9	30	- 8.3
15	- 5.2	35	- 8.0
20	- 8.4	40	- 8.2
21	- 9.1	45	- 8.6
22	- 9.9	50	- 9.1
22.5	-11.0 E	60	-12.2
23	- 9.9	70	-23.4

Pickering, 1893

%	f.t.	%	f.t.
100	-49.3		
	H_2O		
19.36	- 8.37	7.85	- 2.22
19.23	- 8.48	7.47	- 2.30
16.83	- 6.4	5.69	- 1.62
16.63	- 6.10	4.41	- 1.23
13.77	- 4.69	3.36	- 0.94
13.77	- 4.89	2.15	- 0.59
10.77	- 3.33	1.12	- 0.30
	(8+1)		
72.70	-29.25	47.66	- 9.17
72.70	-26.5	45.31	- 7.07
71.76	-22.4	45.21	- 8.9
71.45	-25.5	45.00	- 6.9
71.45	-23.0	44.74	- 8.54
69.98	-21.2	42.74	- 7.0
69.60	-21.85	42.51	- 8.11
68.25	-18.9	42.45	- 7.91
67.45	-17.9	40.91	- 7.28
67.05	-17.5	40.57	- 6.9
66.15	-16.15	40.53	- 7.69
65.15	-15.15	39.28	- 7.9
65.00	-21.6	38.14	- 7.50
64.86	-15.4	37.64	- 6.5
64.05	-14.43	36.80	- 7.39
62.82	-13.3	35.96	- 7.31
62.03	-18.75	34.75	- 7.38
62.02	-13.5	33.83	- 7.55
62.02	-14.22	33.37	- 6.3
61.78	-12.75	33.21	- 7.22
60.14	-12.47	32.24	- 7.22
59.47	-11.4	30.81	- 7.31
58.85	-14.99	29.87	- 7.24
58.16	-14.85	29.49	- 7.24
57.53	-10.15	28.84	- 6.8
57.17	- 9.89	28.39	- 7.35
57.11	-10.25	27.83	- 7.33
54.80	-19.25	27.34	- 7.51
54.64	- 9.1	25.64	- 7.58
54.40	- 9.35	24.62	- 8.00
54.32	-12.3	24.36	- 8.1
52.54	-10.85	23.80	- 8.36
52.44	- 8.48	23.43	- 8.21
51.67	- 8.2	22.38	- 8.49
50.06	-10.4	22.12	-10.51
49.85	- 7.65	22.12	-10.31
48.70	- 7.45	21.84	- 8.83
	(1+2)		
98.61	-34.0	86.89	-19.35
97.26	-28.2	85.44	-20.0
95.95	-24.25	85.21	-19.7
94.67	-22.65	83.53	-21.3
93.42	-20.35	80.81	-23.5
92.97	-20.15	80.29	-23.6
92.21	-20.25	78.02	-25.25
90.64	-19.18	75.75	-25.75
89.87	-18.9	74.91	-27.35
87.65	-19.7		

Somerville, 1931

mol %	f.t.	mol %	f.t.
0.71	- 0.68	6.14	- 9.51
1.47	- 1.48	6.53	- 9.12
1.62	- 1.69	7.00	- 8.43
2.08	- 2.19	8.16	- 7.73
2.78	- 3.15	9.33	- 7.44
3.09	- 3.54	10.76	- 7.32
3.68	- 4.52	13.67	- 7.58
4.25	- 5.49	17.89	- 9.14
4.90	- 6.77	22.96	-11.83
5.74	- 8.44	23.65	-12.33
5.89	- 8.99		
		(8+1)	
41.53	-29.6	63.35	-20.87
45.22	-27.0	68.55	-20.45
49.54	-25.2	86.6	-24.9
58.27	-21.76	88.1	-30
63.18	-20.75	96.4	-38

Tichacek, Kmak and Drickamer, 1956

mol %	D	mol %	D
	49°		
6.9	-1.52	34.2	-3.24
15.4	-2.19	61.2	-1.64
20.6	-2.71		

Traube, 1896

%	d	%	d
	15°		
1.720	0.99579	13.555	0.97482
5.250	0.98901	100	0.7084 (20°
9.619	0.98135		

Le Blanc and Rohland, 1896

% (1+1)	d	n_D
	20°	
11.14	0.9801	1.3458
15.81	0.9728	1.3511

Somogyi, 1916

%	a^2 (mg/mm)	%	a^2 (mg/mm)
	16.6°		
13.555	3.755	2.765	5.299
9.619	4.191	1.720	5.712
5.250	4.762		

mol %	a^2 (mg/mm)
1.0	4.440
0.5	5.100
0.25	5.700

Copp and Everett, 1953

mol %	Q mix	mol %	Q mix
	25°		
2.9	210	42.5	810
10.6	500	52.3	795
20.0	690	62.0	720
28.2	750	72.6	650
35.3	795	85.6	400

Water + Dipropylamine ($C_6H_{15}N$)

Pickering, 1893

%	f.t.	%	f.t.
100	-60		
	H_2O		
75.30	-11.65	47.70	- 2.3
74.97	-11.3	47.36	- 1.9
74.91	-13.3	41.62	- 2.6
71.87	- 8.35	40.81	- 2.16
70.84	- 8.35	40.44	- 1.9
70.71	- 7.23	36.60	- 2.6
69.50	- 6.55	32.81	- 2.15
65.92	- 4.7	23.70	- 1.95
65.87	- 4.4	21.97	- 2.15
64.61	- 5.25	16.84	- 1.9
62.86	- 3.7	14.29	- 2.2
61.73	- 3.15	12.48	- 1.63
58.88	- 2.95	7.11	- 1.15
56.86	- 2.8	6.47	- 1.1
56.84	- 2.4	4.51	- 1.65
53.36	- 2.55	3.89	- 0.75
48.12	- 2.5	3.76	- 0.6
	(1+2)		
97.37	-21.25	89.04	-17,63
97.25	-21.1	86.37	-17.7
95.61	-18.4	84.78	-18.48
93.46	-17.1	82.36	-18.9
92.92	-17.25	80.03	-20.10
89,85	-17.35	79.18	-19.7

Hobson, Hartman and Kanning, 1941

%	sat.t.	%	sat.t.
1.96	+52.6	47.54	- 1.5
2.42	+44.1	60.40	+ 4.2
2.91	+36.1	64.06	8.0
5.86	+12.2	73.33	17.5
9.33	- 0.6	78.69	24.7
12.27	- 2.2	82.15	31.2
15.28	- 3.5	85.83	39.0
25.21	- 4.5	89.26	49.0
33.69	- 4.8	93.25	74.8
44.68	- 2.9		

C.S.T. = 34 % -4.8°

Water + Trimethylamine (C_3H_9N)

Pickering, 1893

%	f.t.	%	f.t.
(11+1)			
77.95	-57.4	33.30	+ 1.15
75.23	-59.35	32.58	+ 2.35
72.44	-45.3	30.77	+ 3.0
71.96	-43.65	29.42	+ 5.05
69.79	-46.95	28.65	+ 4.05
68.11	-35.85	28.37	+ 4.25
67.04	-38.45	26.40	+ 4.75
64.28	-30.15	25.03	+ 5.0
64.22	-39.9	24.76	+ 5.75
62.36	-33.65	24.70	+ 5.15
59.59	-25.75	22.79	+ 5.25
59.48	-18.25	21.83	+ 5.1
59.04	-26.65	20.42	+ 5.3
56.66	-18.75	20.20	+ 5.33
55.06	-12.2	19.29	+ 4.9
54.01	-16.2	18.44	+ 4.85
52.99	-13.15	16.94	+ 4.1
50.44	- 6.6	16.82	+ 4.15
50.02	-10.75	15.86	+ 4.05
48.88	- 9.2	15.45	+ 3.55
46.13	- 7.6	15.02	+ 3.25
45.65	- 2.2	13.52	+ 2.35
44.51	- 5.75	12.83	+ 1.45
42.47	- 5.15	9.36	- 2.15
40.92	- 2.35	9.08	- 1.75
40.27	+ 0.75	8.60	- 2.35(H_2O)
38.82	- 2.4	6.84	- 2.2
36.86	+ 0.6	4.85	- 1.65
35.69	- 0.65	3.30	- 1.3
34.86	+ 3.4		

Different series

Somerville, 1931

mol %	f.t.	mol %	f.t.
(11+1)			
2.38	- 2.52 ice	13.36	+ 4.1
3.84	+ 0.1	16.31	+ 1.7
5.00	+ 2.8	20.39	- 2.0
6.81	+ 4.8	26.63	- 9.4
9.18	+ 5.4	32.66	-17.3
12.49	+ 4.8	40.70	-33

Water + Methyl diethylamine ($C_5H_{13}N$)

Copp, 1955

mol %	p	mol %	p
35.0°			
0	42.20	37.15	237.35
0.50	83.55	45.00	242.80
1.09	132.35	51.45	245.70
1.68	165.30	56.35	247.80
2.57	188.75	60.65	250.55
3.23	196.30	65.70	252.85
5.02	204.90	70.95	255.10
5.93	207.10	74.95	256.35
8.12	210.60	78.75	257.85
12.58	215.20	83.85	259.95
16.00	219.10	89.60 Az	262.00
22.40	224.75	91.60	261.65
26.60	228.85	100	254.60
32.70	234.10		
47.01°			
0	79.65	38.85	399.65
0.50	177.00	42.15	401.35
0.89	253.40	48.10	404.05
1.89	358.10	55.00	408.35
3.38	379.50	58.30	409.65
4.88	383.90	63.90	413.65
7.31	384.95	67.60	415.60
10.03	385.65	68.80	416.45
12.92	386.35	75.70	419.95
15.65	387.00	82.40	422.50
20.95	388.75	85.50 Az	423.10
25.25	391.35	92.50	421.50
29.90	393.90	100	400.75

mol %	wt %	vol %	sat.t.
2.9	12.5	17	52.08
3.3	14.0	19	51.28
5.0	20.3	26	49.81
7.1	26.8	34	49.46
8.2	30.1	38	49.45
8.7	31.5	39	49.43
10.5	36.2	44	49.42
12.0	39.6	48	49.46
13.1	42.2	50	49.53
20.5	55.5	64	50.52
32.1	69.6	76	53.16
35.4	72.6	79	54.01

Water + Triethylamine ($C_6H_{15}N$)

Heterogeneous eqilibria

Lattey, 1923

%	p 1.35°	4.40°	10.95°	23.34°
6	-	-	-	24.15
7	-	-	-	25.85
8	14.94	-	-	27.67
9	15.66	20.02	25.97	29.61
10	16.43	21.58	28.07	31.69
11	17.23	23.25	30.49	33.93
12	18.25	25.07	33.25	36.31
13	19.36	27.01	35.89	38.84
14	20.56	29.10	38.71	41.57
15	21.82	31.36	41.70	44.47
16	23.15	33.79	45.01	47.57
17	24.57	36.42	48.50	50.88
18	26.08	39.25	52.27	54.20
19	27.69	42.30	56.19	57.65
20	29.41	45.59	60.28	61.30
21	31.23	49.12	64.45	65.13
22	33.16	52.94	68.83	69.15
23	35.22	57.05	72.77	73.37
24	37.43	61.50	76.85	77.77
25	39.77	66.22	81.14	82.37
26	42.25	71.29	85.65	87.18
27	44.88	76.67	90.22	-
28	47.69	81.39	94.98	-
29	50.71	87.46	100.19	-
30	53.97	93.88	105.17	-
31	57.36	100.66	110.60	-
32	61.00	107.81	116.28	-
33	64.78	115.32	122.27	-
34	68.81	123.22	128.57	-
35	73.04	131.57	135.09	-
36	77.47	140.19	141.86	-
37	82.19	148.55	148.82	-
38	87.10	156.48	156.08	-
39	92.31	164.47	163.68	-
40	97.77	172.73	171.54	-
41	103.55	181.14	179.79	-
42	109.60	189.74	188.31	-
43	115.82	198.70	197.09	-
44	122.31	207.83	206.28	-
45	129.06	217.54	-	-
46	136.02	-	-	-
47	143.33	-	-	-
48	150.94	-	-	-
49	158.85	-	-	-
50	167.17	-	-	-

%	p 41.69°	84.84°	93.83°	100°
7	-	-	32.89	-
8	-	-	34.68	-
9	-	-	36.59	-
10	33.26	-	38.57	37.37
11	35.47	41.54	40.65	38.82
12	37.90	43.41	42.83	40.40
13	40.32	45.63	45.15	42.13
14	42.98	48.14	47.63	43.99
15	45.74	50.79	50.23	45.99
16	48.65	53.56	53.02	48.11
17	51.66	56.38	55.89	50.37
18	54.93	59.25	58.93	52.77
19	58.49	62.16	62.13	55.30
20	62.23	65.62	65.50	57.96
21	65.93	69.20	69.06	60.76
22	69.78	72.92	72.85	63.70
23	73.75	76.94	76.58	66.77
24	77.84	80.78	80.49	69.97
25	82.03	84.98	84.61	73.30
26	86.49	89.31	88.92	76.77
27	91.12	93.84	93.48	80.39
28	95.99	98.56	98.25	84.14
29	101.02	103.48	103.27	88.04
30	106.24	108.62	108.52	92.10
31	111.74	113.99	114.01	96.30
32	117.52	119.62	119.71	100.69
33	123.54	125.49	125.67	105.23
34	129.82	131.65	131.84	109.90
35	136.37	138.08	138.27	114.80
36	143.18	144.80	144.91	119.84
37	150.19	151.84	151.82	125.10
38	157.42	159.19	158.97	130.55
39	164.87	166.85	166.42	136.20
40	172.55	174.80	174.15	142.05
41	180.47	183.03	182.22	148.20
42	188.72	191.55	190.61	154.55
43	197.36	200.36	199.33	161.1
44	206.38	209.45	208.40	168.0
45	215.79	218.83	217.85	175.0
46	-	-	227.67	182.4
47	-	-	-	189.9
48	-	-	-	197.85
49	-	-	-	205.9
50	-	-	-	214.4

Roberts and Mayer, 1941

% L	% V	mol % L	mol % V	p	p_2
		0°			
56.37	94.32	18.71	74.74	1.75	1.31
37.21	93.62	9.55	72.33	1.61	1.16
17.35	92.72	3.60	69.41	1.50	1.04
10.28	89.45	2.00	60.17	1.22	0.73
		13°			
88.45	95.12	57.70	77.64	4.32	3.35
77.38	94.61	37.87	75.77	4.2	3.2
67.43	94.29	26.95	74.63	-	-
60.22	94.09	21.24	73.94	-	-
50.78	93.93	15.53	73.38	4.1	2.94
49.51	93.91	14.87	73.32	4.05	2.94
30.75	93.83	7.33	73.04	4.00	2.93
29.49	94.04	6.93	73.76	4.00	2.96
27.48	93.85	6.32	73.11	4.00	2.93
19.41	93.93	4.11	73.38	3.93	2.94
11.55	93.29	2.27	71.24	3.78	2.69
7.77	91.71	1.48	66.34	3.22	2.14
7.00	90.26	1.32	62.28	3.07	1.91
6.38	83.86	1.20	48.08	2.98	1.43
		16°			
90.26	94.92	62.28	76.90	5.15	3.96
89.43	94.92	60.12	76.90	5.07	3.90
78.52	94.49	39.44	75.34	5.00	3.77
75.56	94.50	35.52	75.38	5.10	3.84
70.86	94.27	30.23	74.56	4.99	3.72
70.02	94.31	29.38	74.70	5.05	3.77
65.50	94.12	25.27	74.03	-	-
65.17	94.14	25.00	74.11	4.97	3.64
62.84	93.94	23.15	73.41	-	-
60.68	94.06	21.65	73.83	4.97	3.63
54.02	94.26	17.31	74.53	4.93	3.66
52.74	94.06	16.58	73.83	-	-
34.21	94.04	8.48	73.76	-	-
20.18	93.96	4.31	73.49	4.85	3.61
18.16	94.07	3.80	73.86	4.85	3.63
11.87	93.30	2.34	71.27	4.72	3.36
		18°			
97.51	96.22	87.4	81.93	5.75	4.71
97.32	96.35	86.6	82.84	5.75	4.76
88.9	94.36	58.7	74.85	-	-
79.1	94.13	40.3	74.07	5.65	4.18
68.2	94.21	27.6	74.35	5.65	4.20
53.5	94.12	17.0	74.04	5.65	4.18
32.3	94.23	7.8	74.42	5.65	4.20
19.77	93.90	4.2	73.28	5.50	4.03
17.71	93.80	3.7	72.94	5.50	4.01
16.5	93.62	3.4	72.33	5.50	3.98
15.9	93.81	3.3	72.97	5.47	3.99
9.0	90.10	1.7	61.85	5.30	3.28

Kohler, 1951

%	p 0°	p 10°	p 18°
100.0	19.05	32.85	49.15
91.0	-	36.05	55.05
86.4	20.10	36.30	55.95
74.0	20.10	36.65	56.45
68.0	20.45	36.65	56.80
38.5	19.10	35.40	55.40
16.0	17.10	33.65	54.40
9.1	16.55	33.50	55.15
3.2	14.65	31.90	54.35
0	4.80	9.70	16.10

%	p_1 0°	p_1 10°	p_1 18°
100	0	0	0
90	2.6	5.7	9.7
80	3.7	7.8	13.1
70	4.05	8.5	14.55
60	4.15	8.65	15.2
50	4.2	8.85	15.4
40	4.25	9.05	15.5
30	4.3	9.2	15.55
20	4.4	9.3	15.6
10	4.5	9.35	15.6
0	4.8	9.6	16.1

%	p_2 0°	p_2 10°	p_2 18°
100	19.1	32.8	49.1
90	17.5	30.35	45.5
80	16.45	28.8	43.4
70	16.0	28.0	42.0
60	15.6	27.35	41.15
50	15.2	26.75	40.7
40	14.65	26.1	40.3
30	14.0	25.3	39.8
20	13.1	24.7	39.5
10	12.2	24.2	39.3
0	0	0	0

Guthrie, 1878

%	sat.t.	%	sat.t.
1.96	78	30	18.2
3.85	41	40	18.4
5	34	46.46	18.3
8	23.5	50	18.4
10	21.3	70	17.1
15.	18.8	80	13.4
18	18.6	90	6.1
20	18.6	94.5	- 7 (?)

Rothmund, 1898

%	sat.t.	%	sat.t.
1.70	69.20	68.65	20.47
3.08	45.97	83.96	20.50
5.61	30.77	89.71	20.52
8.46	23.15	92.37	21.22
25.80	18.72	95.54	25.77
37.25	18.75	96.11	26.47
51.81	19.47		

Roberts and Mayer, 1941

%	sat.t.	%	sat.t.
92.0	22.2	25.1	18.4
73.0	20.0	15.7	18.9
44.8	18.7		

Krichevskii, Khasanova and Linshits, 1955

%	sat.t.	%	sat.t.
5.4	18.35	38.6	17.90
11.6	18.02	48.5	18.195
20.7	17.81	58.4	18.71
27.6	17.805		

Rousset, 1936

C.S.T. = 52 % 19.88°

Kuenen, 1895

C.S.T.	P	C.S.T.	P
18.3	0	20.0	79
18.45	9.5	21.2	140
19.63	63	21.3	144
19.95	78	21.9	146

Timmermans and Kohnstamm, 1909 - 1910

C.S.T. = 18.0 Limits of P (1-90 kg/cm^2)
dt/dp = +0.02

Timmermans, 1907

C.S.T. = 19° 35 %

Timmermans and Kohnstamm, 1912 - 1913

P	C.S.T.	dt/dp
5	18.36	+0.0206
200	22.37	+0.0179
600	29.53	+0.0125
1000	34.5	-
5	18.35	+0.0182
600	29.19	+0.0127
1000	34.26	+0.0103
1500	39.40	+0.0080
2000	43.45	-

Quantie, 1954

C.S.T. = 12.4° 39.7 %

Guthrie, 1878

%	f.t.	%	f.t.
5	-1.0	30	- 4.1
10	-2.0	40	- 5.1
15	-2.9	50	- 6.7
18	-3.4	70	-13.6
19.1	-3.8	80	-20.6
20	-3.5		

Meerburg, 1900 - 1902

%	f.t.	%	f.t.
1.72	-0.37	20.6	-3.8
3.54	-0.562	21.9	-3.85
4.17	-0.787	22.9	-3.9
4.8	-1.0	25.5	-4.2
5.87	-1.2	30.2	-4.5
7.37	-1.5	31.0	-4.55
9.8	-2.1	39.9	-5.4
12.75	-2.8	43.7	-5.8
13.45	-3.0	46.5	-6.4
17.3	-3.5	50.5	-7.4
17.9	-3.55	57.14	-9.8
19.5	-3.7	60.43	-10.6
20.4	-3.75		

Pickering, 1893

%	f.t.	%	f.t.
	H_2O		
70.56	-16.0	31.22	- 3.3
67.20	-12.95	30.89	- 4.35
66.20	-13.1	28.62	- 4.5
63.73	-11.2	27.18	- 4.33
63.58	-10.3	25.79	- 4.42
61.77	-10.45	24.99	- 3.7
59.70	- 8.75	23.42	- 4.3
58.89	- 9.08	22.16	- 3.95
57.27	- 8.85	21.47	- 4.1
54.88	- 7.2	20.68	- 3.3
53.41	- 7.45	19.84	- 4.05
52.94	- 7.85	16.67	- 3.13
49.30	- 6.05	15.80	- 2.8
48.54	- 6.38	14.76	- 3.23
48.15	- 6.43	12.80	- 2.55
44.92	- 6.05	11.25	- 1.95
43.54	- 5.4	10.69	- 2.35
43.35	- 4.87	8.71	- 1.6
41.20	- 5.3	7.91	- 1.25
39.19	- 4.98	7.36	- 1.6
37.18	- 4.35	5.61	- 0.95
36.90	- 4.95	5.44	- 1.1
34.98	- 4.72	4.63	- 1.0
32.32	- 4.7	3.29	- 0.7
	(H_2O) second series		
39.480	-5.493	16.641	-3.592
36.809	-5.119	14.824	-3.243
34.349	-4.993	13.133	-3.065
31.899	-4.730	11.129	-2.458
28.482	-4.515	9.225	-2.022
24.842	-4.266	6.854	-1.437
21.691	-4.017	5.072	-1.032
20.193	-3.944	2.909	-0.575
17.382	-3.632		
	(2+1)		
96.21	-47.35	82.01	-20.15
95.65	-46.1	80.97	-20.75
95.02	-39.3	79.99	-20.6
91.85	-29.4	79.11	-19.35
91.79	-39.5	76.77	-19.85
91.63	-29.9	76.40	-19.45
88.53	-24.45	76.21	-19.15
88.22	-25.35	74.01	-19.35
87.20	-24.4	73.58	-18.74
85.29	-22.25	71.62	-18.35
85.16	-22.3	71.16	-17.4
83.62	-21.6	67.89	-13.8

Somerville, 1931

mol %	f.t.	mol %	f.t.
0.83	-0.85	8.55	- 4.64
1.43	-1.48	12.18	- 5.53
2.70	-2.94	18.77	- 8.00
3.54	-3.42	28.61	-14.1
4.09	-3.65	30.55	-15.3
4.70	-3.81	32.21	-19.21
5.42	-3.95	37.0	-19.8
6.79	-4.26	53.97	-22.9
	(2+1)		

Properties of phases

Tsakalotos, 1909

%	d	%	d
	15°		
0	0.9991	51.2	0.8830
15.4	.9723	59.7	.8623
26.6	.9459	73.9	.8211
41.6	.9053	100	.7323

Merzline, 1935

mol %	%	d
	15°	
100	100	0.7321
80.61	95.8	.7501
59.54	89.1	.7743
49.44	84.5	.7889
39.98	78.8	.8072
20.00	58.3	.8637
12.75	45.05	.9000
4.97	22.6	.9544

Krichevskii, Khasanova and Linshits, 1955

%	d		
	15.5°	16.0°	16.5°
11.6	-	1.0272	1.0275
20.7	-	-	.0496
38.6	1.0958	1.0966	.0976
48.5	.1245	.1255	.1266
58.4	.1593	.1602	-

%	d		
	17.0°	17.5°	18.0°
5.4	-	1.0131	1.0132
11.6	1.0279	.0282	.0286
20.7	.0501	.0508	-
27.6	.0684	.0693	-
38.6	.0985	.0996	-
48.5	.1276	.1286	1.1297
58.4	.1620	.1631	.1642
100	.3713	.3723	.3730

Morgan and Eglof, 1916

t	σ					
	0 %	0.50%	1.00%	2.10%	2.44%	4.79%
0	75.87	58.21	52.49	46.07	-	39.61
19.2	72.82	53.23	47.42	40.25	38.71	31.78
30.0	71.03	51.47	45.01	37.39	35.96	27.18
	10.0%	50.5%	75.38%	94.96%	100%	
0	31.33	25.25	23.94	22.64	22.31	
19.2	24.40	21.73	21.50	20.67	20.53	
30.0	-	-	-	19.56	-	

Morgan and Evans, 1917

t	σ		
	100 %	L_2	L_1
25	19.49	20.38	22.37
30	18.99	19.75	23.54
35	18.50	19.11	24.15
40	18.02	18.51	26.08
45	17.50	17.93	27.52

Merzline, 1935

mol %	%	σ	
		0°	15°
100	100	22.92	21.08
80.61	95.8	23.19	21.08
59.54	89.1	24.02	22.59
49.44	84.5	24.47	23.74
39.98	78.8	24.70	22.96
20.00	58.3	25.98	23.64
12.75	45.05	25.90	23.57
4.97	22.6	28.16	24.55

Tsakalotos, 1909

%	η	%	η
	15°		
0	1134	51.2	4677
15.4	2563	59.7	4176
26.6	3984	73.9	2563
41.6	4658	100	397.1

Merzline, 1935

mol %	%	η
	15°	
100	100	410.4
80.61	95.8	557.7
59.54	89.1	921.6
49.44	84.5	1320.3
39.98	78.8	1960.8
20.00	58.3	4287.6
12.75	45.05	4954.0
4.97	22.6	3427.0

Semenchenko and Zorina, 1952

t	η	t	η
	3.07 mol %		
14.8	2590	18.48	2193
15.8	2479	18.56	2191
16.8	2384	18.61	2181
17.45	2308	18.67	2177
17.7	2284	18.80	2197
17.93	2253	18.81	2171
18.165	2240	18.855	2179
18.350	2213	18.885	2157
18.42	2203	18.97	2142
	4.4 mol %		
12.0	3814	17.93	2885
13.5	3556	18.03	2869
14.9	3323	18.08	2827
14.8	3255	18.11	2881
15.95	3135	18.23	2843
17.03	3085	18.33	2836
17.08	3001	18.445	2824
17.35	2966	18.465	2810
17.6	2927	18.52	2752
17.83	2911		
	5.33 mol %		
14.8	3774	18.085	3375
15.75	3626	18.115	3359
16.8	3496	18.145	3396
17.37	3422	18.16	3406
17.73	3381	18.195	3427
17.90	3372	18.20	3383
18.01	3387		
	5.88 mol %		
15.65	3766	18.0	3424
16.0	3718	18.14	3473
16.35	3638	18.17	3499
16.63	3565	18.18	3520
17.1	3509	18.19	3545
17.3	3477	18.20	3535
17.65	3447	18.21	3504
17.8	3416	18.22	3395
	7.12 mol %		
16.2	3981	17.8	3818
17.15	3852	17.93	3843
17.55	3819	18.0	3875
18.06	3877	18.15	4040
18.085	3902	18.16	4149
18.115	3979	18.17	4197
18.13	4006	18.19	4058
18.14	4022	18.20	3986
	8.4 mol %		
15.8	4293	17.96	4050
16.05	4252	18.02	4078
16.3	4215	18.07	4087
16.75	4169	18.14	4141
17.03	4106	18.16	4193
17.12	4078	18.20	4248
17.205	4099	18.235	4266
17.265	4076	18.245	4284
17.40	4074	18.275	4469
17.66	4066	18.285	4570
17.8	4065	18.295	4660
17.88	4064	18.325	3933
	8.75 mol %		
15.8	4467	18.03	4150
16.5	4309	18.13	4192
17.0	4203	18.285	4286
17.5	4113	18.295	4563
17.9	4087	18.30	4292
17.945	4105	18.335	3926

9.10 mol %

11.9	5429	18.1	4192
13.4	5029	18.13	4181
14.7	4707	18.17	4264
15.9	4444	18.19	4238
16.65	4316	18.22	4354
16.78	4240	18.24	4389
16.94	4234	18.25	4413
17.19	4212	18.27	4475
17.48	4180	18.285	4640
17.715	4155	18.29	4644
17.8	4167	18.3	4645
17.925	4209	18.32	4326
17.985	4172	18.335	4013
18.025	4123		

9.32 mol %

12.15	5343	18.135	4221
13.45	5026	18.270	4348
14.9	4710	18.295	4441
16.25	4422	18.3	4507
17.16	4251	18.305	4535
17.3	4172	18.305	4556
17.45	4148	18.31	4620
17.76	4055	18.32	4517
17.91	4153	18.325	4377
17.97	4141	18.335	4247
18.050	4183		

9.46 mol %

16.0	4490	18.15	4278
17.0	4329	18.175	4315
17.1	4287	18.185	4427
17.45	4224	18.195	4483
17.6	4243	18.20	4438
17.7	4132	18.21	4419
17.8	4148	18.22	4211
17.92	4175	18.23	3974
17.98	4185	18.24	3938
18.05	4194	18.27	3790
18.13	4252		

10.1 mol %

12.5	5577	18.04	4298
13.75	5185	18.075	4301
15.05	4852	18.13	4358
16.0	4596	18.15	4372
17.02	4372	18.17	4405
17.32	4325	18.185	4450
17.47	4309	18.19	4468
17.65	4295	18.205	4495
17.82	4269	18.205	4501
17.9	4258	18.205	4528
18.01	4271	18.22	4311

11.47 mol %

11.85	5895	17.99	4377
13.35	5410	18.12	4449
13.85	5179	18.13	4533
14.7	4995	18.15	4512
15.1	4891	18.155	4533
15.8	4763	18.16	4551
16.55	4599	18.17	4413
17.35	4403	18.19	4377
17.75	4387	18.19	4145

13.14 mol %

14.8	5357	18.0	4621
15.9	5047	18.08	4602
16.55	4885	18.095	4623
17.1	4726	18.10	4650
17.4	4686	18.11	4635
17.7	4639	18.12	4661
17.91	4620	18.135	4615

Benjamin, 1932

mol %	$n_{He\ y}$	mol %	$n_{He\ y}$
	20°		
0	1.33279	50.0	1.40450
10.6	.35807	70.0	.40450
30.0	.40014	100	.40032

Kohler, 1951

%	n_D	%	n_D
	18°		
100	1.40123	77.7	1.40406
96.3	.40181	63.5	.40525
92.9	.40230	39.5	.40319
	16°		
16.4	1.38945	1.7	1.34660
11.5	.38147	0	.33320
4.5	.36120		

Krishnan, 1935

C.S.T. inf. 70 % 19°

t	molecular clustering		
	Ph	Pv	Pu
	70 %		
2	81	17	35
5	76	14	28
9.5	70	9.3	20
12	66	8.5	16
14.5	63	5.3	13
16.5	55	2.7	6.7
18	42	0.85	3.1
19	33	0.35	1.3

Ph = horizontal polarisation

Pv = vertical polarisation

Pu = unpolarised light

Alfrey and Schneider, 1953 (fig.)

t	ultrasonic absorption coefficient (cm-1)				
	1*	3	5	7	9
9.5	0.16	3.0	5.5	7.6	12.7
13.5	0.3	3.4	6.1	9.0	14.2
17	1.0	5.0	9.0	11.8	18.8
18.5	1.5	6.3	11.5	14.3	23.4
19.5	1.65	6.5	11.9	15.1	24.7
20	1.7	6.5	12.0	15.1	24.9

* frequency in megacycles/sec.

Thermal constants

Semenchenko and Skripov, 1951 (fig.)

t	U	t	U
34.11 %		19	1.40
17	1.10	19.2	2.25
17.5	1.12	19.5	1.85
18	1.12	20.0	1.70
18.25	1.12	20.2	1.70
18.5	1.25		

Semenchenko and Skripov, 1952 (fig.)

mol %	U	mol %	U
2.5	1.25	7.8	2.38
3	1.30	9	2.34
4	1.52	10	2.15
4.6	2.0	12	1.96
5.5	2.20	14	1.92
7	2.35	17	1.65

Jura, Fraga and al., 1953

t	U	t	U
critical region			
14.28	26.0	19.97	38.7
15.89	27.1	20.20	37.2
17.03	28.5	22.22	33.3
17.83	31.4	24.59	29.8
18.37	46.6	25.97	27.5
18.45	52.5	27.74	26.8
18.85	49.4	29.88	25.4
19.20	43.4	39.22	24.2
19.56	39.9		

Skripov and Semenchenko, 1955

t	U	t	U
17.2 wt % = 3.60 mol %			
18.30	1.14	19.11	1.19
18.44	1.14	19.24	1.20
18.57	1:15	19.36	1.64
18.71	1.16	19.44	1.62
18.84	1.16	19.51	1.62
18.97	1.17	19.57	1.57
14 wt % = 2.85 mol %			
18.29	1.11	19.42	1.14
18.43	1.11	19.55	1.15
18.57	1.12	19.69	1.18
18.71	1.12	19.82	1.49
18.85	1.13	19.93	1.50
18.99	1.12	20.03	1.48
19.13	1.13	20.15	1.49
19.28	1.14		
20.0 wt % = 4.26 mol %			
18.12	1.16	19.05	1.25
18.25	1.16	19.17	1.34
18.39	1.18	19.26	1.90
18.52	1.19	19.31	1.84
18.65	1.19	19.37	1.78
18.79	1.20	19.42	1.76
18.92	1.22		
24.0 wt % = 5.35 mol %			
17.83	1.17	18.94	1.29
17.97	1.18	19.07	1.40
18.11	1.19	19.17	1.56
18.25	1.20	19.22	2.12
18.39	1.22	19.28	2.03
18.67	1.24	19.33	1.96
18.80	1.26		
33.5 wt % = 8.3 mol %			
15.95	1.11	18.68	1.27
16.12	1.11	18.78	1.31
16.27	1.12	18.82	1.32
16.43	1.12	18.93	1.36
16.58	1.13	18.95	1.36
16.74	1.13	19.06	1.40
16.89	1.14	19.08	1.41
17.04	1.14	19.17	1.49
17.19	1.15	19.19	1.50
17.35	1.16	19.25	1.88
17.36	1.16	19.26	1.91
17.50	1.17	19.30	2.34
17.51	1.18	19.31	2.47
17.65	1.18	19.35	2.26
17.66	1.19	19.36	2.28
17.81	1.19	19.40	2.17
17.95	1.20	19.41	2.15
18.10	1.21	19.45	2.12
18.25	1.24	19.46	2.12
18.39	1.24	19.52	2.07
18.51	1.26	19.53	2.09
18.54	1.27	19.62	1.90
18.65	1.28	19.73	1.96
38 wt % = 9.8 mol %			
18.14	1.20	19.02	1.34
18.26	1.21	19.14	1.40
18.39	1.23	19.23	1.45
18.51	1.24	19.29	1.87
18.61	1.26	19.34	2.31
18.78	1.28	19.39	2.22
18.90	1.31	19.44	2.14
44.7 wt % = 12.6 mol %			
18.29	1.16	19.34	1.27
18.43	1.16	19.44	1.30
18.56	1.18	19.51	1.34
18.69	1.18	19.58	1.82
18.83	1.20	19.63	2.09
18.96	1.21	19.68	2.10
19.09	1.24	19.73	2.03
19.22	1.26		

Gerts and Filippov, 1956

Heat conductivity expressed as function of the potential difference on the Wheatstone bridge .

Copp and Everett, 1953

mol %	Q mix	mol %	Q mix
	15°		
8.0	290	37.0	585
8.6	310	40.0	565
10.0	375	47.2	550
14.2	490	56.0	510
20.4	550	60.7	495
25.8	595	67.6	450
30.6	590		

Bellemans, 1953 (fig.)

mol %	Q mix
16°	
10	360
20	470
40	565
42	570

Water + Amines

Lecat, 1949

2nd Comp.			Az	
Name	Formula	b.t.	%	b.t.
Dimethyl-3,3-butylamine	$C_6H_{15}N$	112.8	-	92.9
Ethylene-diamine	$C_2H_8N_2$	116.5	70	118.5
Furfuryl-amine	C_7H_5ON	144	26	99

Water + Ethylenediamine ($C_2H_8N_2$)

Elgort, 1929

mol %	f.t.	
0.0	0.0	-
4.4	- 6.0	-
8.6	-12.5	-
12.7	-28.8	-53.0 E
16.1	-49.0	-53.0 "
17.7	-50.5	-52.3 "
19.4	-37.0	-52.5 "
24.5	-19.3	-53.5 "
30.0	-10.8	-52.3 "
33.0	-10.0	-
35.0	- 1.3	-10.2 tr.t.
37.4	+ 3.8	- 9.5 "
38.7	+ 4.8	- 8.8 "
39.7	+ 6.5	-11.0 "
41.6	+ 7.0	- 9.8 "
44.1	+ 9.0	- 8.8 "
45.0	+ 9.2	- 9.8 "
47.4	+ 9.5	-10.5 "
50.2	+10.0	-
55.0	+ 9.5	- 0.5 E
59.0	+ 9.0	- 0.8 "
66.4	+ 8.5	-
69.9	+ 7.3	- 1.0 E
80.1	+ 2.2	- 0.8 "
80.8	+ 0.6	- 0.8 "
81.6	+ 0.9	- 0.8 "
82.0	+ 1.2	- 0.8 "
85.1	+ 3.0	- 0.8 "
90.0	+ 4.8	- 0.8 "
95.0	+ 6.3	- 0.8 "
100.0	+ 8.5	-

E = -53.0° 16.8 mol %

- 0.8° 81.0 mol % tr.t. (2+1) -10° 33 mol%

mol %	d		
	0°	25°	50°
0.0	0.9999	0.9971	0.9881
4.4	.9989	.9939	.9842
8.6	1.0034	.9948	.9828
16.1	.0104	.9959	.9799
19.4	.0126	.9953	.9786
24.5	.0130	.9952	.9768
30.0	.0135	.9905	.9697
33.0	.0100	.9889	.9682
35.0	.0055	.9844	.9632
37.4	.0026	.9806	.9582
38.7	.0009	.9788	.9568
39.7	0.9995	.9785	.9558
41.6	.9972	.9757	.9536
44.1	.9927	.9705	.9490
45.0	.9921	.9696	.9484
46.5	.9884	-	-
47.4	.9876	0.9664	0.9433
50.2	.9842	.9624	.9401
51.7	.9814	.9589	.9366
52.8	.9796	.9565	.9340
55.0	.9753	.9517	.9289
59.0	.9657	.9434	.9221
66.4	.9559	.9342	.9118
69.9	.9532	.9303	.9055
80.1	.9378	.9157	.8942
90.0	.9268	.9044	.8817
100.0	.9144	.8920	.8703

Elgort, 1929

mol %	η 0°	η 25°	η 50°
0.0	1789	894	550
4.4	2952	1221	684
8.6	5338	11932	920
16.1	14932	4028	1549
19.4	22684	5200	1881
24.5	32460	6690	2184
30.0	42388	8057	2551
33.0	43000	8351	2571
35.0	42468	8258	2643
37.4	39505	7825	2423
38.7	37680	7734	2401
39.7	36255	7379	2306
41.6	34284	7048	2291
44.1	30298	6544	2214
45.0	28127	6374	2069
46.5	26530	-	-
47.4	25426	6112	2058
50;2	25063	5885	1991
51.7	24221	5667	1919
52.8	23466	5430	1907
55.0	17371	4610	1733
59.0	12446	3684	1539
66.4	9368	3058	1320
69.9	7415	2569	1174
80.1	4817	1940	978
90.0	3525	1533	847
100.0	2610	1260	737

Water + Dicyclohexylamine ($C_{12}H_{11}N$)

Fouqué, 1918

100 % (1+1)	f.t. = 23°
0.21 % (1+1)	f.t. = 11°
0.16 % amine	f.t. = 28°

Water + Aniline (C_6H_7N)

Lehfeldt, 1899

100° L_1 = 6.5 % L_2 = 91.3 % p = 784.6

%	t	Dp
	$L_1 + L_2 + V$	
3.99	70	- 6.8
7.68	80	-11.1
11.10	85	-13.3

Schreinemakers, 1900

% L	% V	p	% L	% V	p
56.3°			75°		
0	0	125	0	0	289
1.86	6.84	126	1.38	5.62	297
2.52	8.84	-	2.88	10.82	300
3.35	10.51	-	3.46	12.06	301
3.37	11.19	-	3.49	12.14	301
3.49	11.58	-	4.18	13.68	301
3.91	12.82	-	4.6	14.44	302
3.95	12.1	-	4.7	14.85	302
4.27	15.5	-	4.85	15.08	302
94.5	15.5	-	5.2	18.2	303
			94.0	18.2	303

% (V)	t	% (V)	t
	$L_1 + L_2 + V$		
13.4	41	18.2	75
16.66	49.5	19.75	82
15.5	56.3	19.15	90
17.47	64.5		

Lehfeldt, 1899

%	b.t.
3.99	99.364
7.68	99.079
11.10	99.079

Alexejew, 1886

%	sat.t.	%	sat.t.
3.11	16	74.06	157.5
3.58	55	84.03	137
5.25	77	93.96	68
14.11	142	94.57	39
21.01	156	95.02	25
36.87	164.5	95.42	8

Sidgwick, Pickford and Wilsdon, 1911

sat.t.	%	sat.t.	%
13.8	3.611	89.9	6.436
17.6	3.640	93.4	6.690
22.7	3.663	108.8	7.960
27.0	3.685	125.3	10.08
30.6	3.752	145.1	15.43
32.6	3.830	167.0	30.18
34.7	3.879	165.0	63.60
39.8	3.956	160.8	67.12
50.1	4.187	154.4	73.40
52.0	4.300	153.7	73.86
54.0	4.347	150.4	75.88
58.7	4.552	127.2	83.42
61.4	4.652	97.4	89.57
62.8	4.709	74.9	91.912
66.0	4.847	66.6	92.53
68.6	4.984	59.3	93.06
72.3	5.166	51.1	93.51
77.1	5.481	43.2	93.922
79.7	5.640	35.6	94.280
81.6	5.754	27.8	94.594
86.6	6.120	20.0	94.877

C.S.T. = 168

Kolthoff, 1917

%	sat.t.	%	sat.t.
3.5	25	55	156.5
5.4	87	80	134
10	118	90	96.5
20	144	94.8	39
50	158	95	33
52	157.5		

Atkins and Wallace, 1913

E = -10.25°

Timmermans and Kohnstamm, 1909 - 1910

C.S.T. = 165.0 Limits of P (10-210 kg/cm^2)
dt/dp = +0.009

Applebey and Davies, 1915

%	f.t.	%	f.t.
100	- 5.980	97.048	-10.30
99.773	- 6.675	96.628	- 8.80
99.656	- 7.050	96.180	- 6.15
99.511	- 7.550	96.120	- 5.65
99.152	- 8.400	95.873	- 4.00
98.985	- 8.625	95.781	- 3.60
98.510	-10.00	92.797	- 0.50
97.941	-11.00	92.392	- 0.43
97.425	-11.85 E	92.072	- 0.38

Hill and Macy, 1924

%	f.t.	%	f.t.
0.00	0.00	96.90	- 9.4
1.42	-0.28	97.17	-11.7
1.87	-0.38	97.78	-10.05
2.575	-0.51	98.32	-10.02
2.66	-0.54	98.98	- 8.87
3.28	-0.665	99.16°	- 8.41
95.64	-0.665	100.00	- 6.15
96.42	-0.570		

Applebey and Davies, 1915

%	d
20°	
100	1.02136
sat. sol. (water in aniline)	1.02214

Pound and Russel, 1924

%	d
30.4°	
96.471	1.01342
2.860	0.99667
0	0.99555

Mondain-Monval and Quiquerez, 1940

t	d L_1	d L_2
31.08	1.014	0.9970
42.72	1.005	0.9923
47.70	-	0.9923
56.75	0.9964	0.9892
59.9	0.9929	0.9875
73.90	0.9821	0.9798
92.00	0.9678	0.9714

Applebey and Davies, 1915

%	η
20°	
100	4468
99.773	4410
99.656	4380

Pound and Russel, 1924

%	η	%	η
	30.4°		
96.471	3077	0	793
2.860	842		

Whatmough, 1902

t	σ	t	σ
	L_1		
15.0	58.80	55.3	54.77
25.4	57.86	64.6	53.55
34.8	57.09	73.8	52.65
44.2	56.00	80.0	51.91
	L_2		
15.0	53.52	54.7	49.24
26.0	52.71	64.1	48.09
34.9	51.05	73.8	47.07
45.0	50.56	83.0	46.09

Applebey and Davies, 1915

%	n_D
20°	
100	1.58685
98.9516	1.58396
97.8768	1.58114
96.9429	1.57861

Pestemer and Platten, 1933

%	κ	
	L_1	L_2
	50°	
0	0.2065	-
10	1.127	0.3715
30	1.107	0.05781
60	3.177	0.02065
80	1.371	0.02825
90	-	0.00520
95	-	0.00601
100	-	0.00147

Alexejew, 1886

%	U	%	U
0	-	96.14	0.5587
2.83	1.023	100	0.5192

%	Q mix (cal/gr)
18.5	- 5
97.01	-228

Water + Dimethylaniline ($C_8H_{11}N$)

Harkins and Humphrey, 1915

σ (interfacial) at 25° = 25.78

Water + o-Toluidine (C_7H_9N)

Angelescu, 1925

t	% L_1	% L_2
0	1.68	97.65
20	1.69	97.50
122	-	93.13
150	5.65	-
163	-	88.46
181	-	85.33
185	12.46	-
198	16.47	-
200	-	79.77
207	-	74.70
212	-	66.80
215	-	56.08

C.S.T. = 216 50.09 %

Mondain-Monval and Quiquerez, 1940

t	d L_2	t	d H_2O
0.2	1.0176	0	1.0023
9.6	.0102	15.3	.0006
21.0	.0019	21.8	0.9999
31.1	0.9930	31.10	.9970
45.5	.9811	50.70	.9908

Water + p-Toluidine (C_7H_9N)

Walker and Beveridge, 1907

t	p diss (1+1)	t	p diss (1+1)
5	3.0	30	22.5
11	5.0	32	26,5
18	9.0	34	29.5
20	10.5	36	33.0
25	15.7	37	36.0
28	20.0		(1+1)

Water + Phenylenediamine-o ($C_6H_8N_2$)

Sedgwick and Neill, 1923

%	f.t.	%	f.t.
4.05	35.1	62.53	67.7
5.85	45.8	74.74	71.3
11.86	56.3	88.36	80.8
18.72	61.3	93.83	88.1
23.43	62.8	96.15	91.7
31.55	64.2	97.72	95.5
46.81	66.1	100.00	103.8

Water + m-Phenylenediamine ($C_6H_8N_2$)

Sidgwick and Neill, 1923

%	f.t. I	f.t. II
3.27	0.3	-
8.71	-	0.3
9.22	14.3	-
12.64	18.3	4.6
17.16	22.0	9.3
19.05	23.1	-
21.21	24.1	11.7
26.17	25.1	-
32.82	26.3	16.1
40.62	27.1	17.3
43.77	27.1	-
49.83	27.9	18.7
56.51	29.0	19.9
61.94	29.1	20.8
69.63	30.2	22.7
75.52	31.5	26.0
79.15	32.8	28.7
83.83	34.4	32.6
92.32	-	43.5
96.81	-	53.6
98.40	-	57.6
100.0	-	62.8

Water + p-Phenylenediamine ($C_6H_8N_2$)

Sidgwick and Neill, 1923

%	f.t.	%	f.t.
1.08	3.6	51.80	75.5
3.70	23.7	59.02	80.3
9.85	37.8	70.03	88.5
18.75	49.9	78.10	95.9
27.22	59.2	86.63	107.0
34.43	64.6	95.04	125.1
41.75	69.2	100.0	139.7

Water + Phenylhydrazine ($C_6H_8N_2$)

Blanksma, 1912

% L	% V	b.t.
49.7	1	104
68.9	1.6	106
91.9	4.1	114
97.5	40	170
100	100	243

%	d	%	d
	20°		
100	1.099	74.3	1.089
92.3	1.096	60.0	1.049
85.8	1.091	11.7	1.013
78.4	1.085		

%	f.t.	%	f t
100	19.6	64.2	20 4
99.1	17	60 1	19 8
99	16.6 E	11.6	19 8
98.8	17	10:9	19.6
98.1	18.8	10.4	18.8
97.2	23.2	9.6	16.8
95.5	25.2	8	15
93.7	25.7	7	11.6
92.8	26	6	7
92.3	26.2	5.2	5.6
91	26.1	4.7	+1
85.8	24.5	4.6	-0.7 E
85.7	24.4	4.4	-0.65
83.7	24.2	3.9	-0.6
79.2	23	2.2	-0.3
75	21.8	0	0
70.1	21		(1+2)

%	sat.t.	%	sat.t.
60.1	19.8	36.9	55.2-57
59.5	24	33.6	55.2-57
58.4	33.6	31.4	55.1-57
56.7	39.6	29.7	54 6-56 5
54.7	44.2	28.3	54 4-56
53.5	46	25.2	54
51.2	50	21.9	52 4
48.9	50.6	18.7	49 4
46	52.6	16.5	45
41.7	54	13.8	34
39.3	55	11.6	19 8

Oddo, 1913

%	f.t.	%	f.t.	%	f.t
100	19.35	91.41	25.90	75.53	21.21
98.86	16.42	90.90	25.80	74.58	21.04
98.23	16.00	89.82	25.62	73.13	20.80
97.65	20.42	88.85	25.38	71.02	20.51
97.04	22.21	87.90	25.12	68.54	20.19
96.45	23.30	86.91	24.80	64.68	19.82
95.84	24.20	85.97	24.56	63.97	19.79
95.24	24.88	84.68	24.14	61.69	19.70
94.10	25.59	82.59	23.49	59.34	19.70
92.98	25.90	78.24	22.22		

Water + Diphenylamine ($C_{12}H_{11}N$)

Campetti and Delgrosso, 1910 - 1913

%	sat.t.	%	sat.t.
97.19	152	62.52	304
92.93	210	45.15	303
90.23	229	16.50	297
88.28	239	5.62	275
86.73	249	3.49	264
82.08	289	1.48	231
73.07	299		

Water + Benzylamine (C_7H_9N)

Perkin, 1896

%	d	%	d
	15°		
0	0.9991	100	0.9856
94	1.0084		

$(\alpha)^{mol}_{magn}$ = 19.154 at 15° and 14.24 mol %

Water + Acetophenylhydrazone ($C_9H_{12}N_2$)

Blanksma, 1912

mol %	f.t. anhydre	f.t. (1+1)
100	26.6	-
97.8	25.4	-
95.8	24.5	-
94	23.7	28
92.4	-	30
91.8	22.8	-
90.9	-	32
90	21.8	-
89.4	-	32.8
88.3	21.8	-
87	21.8	32.8
80	-	32.8
60	-	32.8
40	-	32.8
E = 24°	$L_1 + L_2$	

Water + Piperidine ($C_5H_{11}N$)

Ewert, 1937

mol %	f.t.	E
8.4	- 4.6	-
26.9	-22.8	-31.9
35.8	-27.3	-31.9
47.9	-19.2	-31.9
53.5	-15.3	-
57.8	-13.3	-
68.2	-12.4	-
78.4	-13.6	-
86.1	-13.2	-16.4
	(2+1)	

Tsakalotos, 1909

%	d	%	d
	20°		
0	0.9983	76.7	0.9177
46.4	.9576	100	.8604
62.6	.9386		

Teitelbaum and Trifonov, 1947

mol %	%	d 0°	d 25°	d 50°	d 75°
0	0	0.9999	0.9971	0.9881	0.9749
5	19.9	.9980	.9808	.9686	.9514
10	34.4	.9870	.9698	.9508	.9304
20	54.1	.9675	.9477	.9256	.9032
30	66.9	.9519	.9302	.9077	.8830
40	75.9	.9386	.9171	.8928	.8684
60	87.6	.9159	.8932	.8677	.8434
80	95.0	.8957	.8750	.8503	.8265
100	100	.8810	.8585	.8366	.8112

Tsakalotos, 1909

%	η	%	η
	20°		
0	1002	76.7	6708
46.4	5346	100	1486
62.6	6931		

Teitelbaum and Trifonov, 1947

mol %	η 0°	25°	50°	75°
0	1800	815	550	381
5	6440	1900	887	512
10	11200	3060	1260	659
20	18400	4760	1770	845
30	21500	5400	1940	901
35	21600	5420	1940	892
40	20200	5130	1860	872
60	11200	3380	1380	705
80	4760	2050	993	571
100	2570	1310	757	545

Teitelbaum and Trifonov, ,1947

mol %	n_D 25°	50°
0	1.33239	1.32918
5	.36460	.35878
10	.39142	.37703
20	.41631	.40229
40	.43793	.42600
60	.44813	.43490
80	.45117	.43740
100	.45197	.43760

Trifonov, Ust-Kachkintsev and Teitelbaum, 1947

mol %	ϰ 0°	0°	25°	50°
	after 1 day	60 days		
1.0	16.334	-	25.250	42.752
2.0	20.000	21.300	37.200	50.210
5.0	12.000	12.400	20.250	28.200
10.0	4.682	4.784	8.000	11.000
15.0	1.865	1.912	3.280	5.104
20.0	0.432	0.472	1.522	2.504
25.0	0.163	0.175	0.820	1.503
30.0	0.108	0.120	0.625	1.132
35.0	0.088	0.101	0.399	0.698
40.0	0.060	0.071	0.230	0.405
45.0	0.045	0.052	0.151	0.258
50.0	0.026	0.034	0.091	0.152
60.0	0.0084	0.015	0.034	0.059
70.0	0.0015	0.003	0.0057	0.0088

Water + 1-Methylpiperidine ($C_6H_{13}N$)

Flaschner, 1908

%	sat.t. lower	higher
5.3	77	178
5.8	69.5	-
6.4	63.6	-
8.0	54.1	-
8.8	-	196
10.3	50.3	-
13.0	48.7	-
13.5	-	236
16.7	48.3	-
21.3	48.5	-
26.9	48.7	-
37.2	49.5	-
46.3	51.2	-
55.9	55.0	-
65.3	61.5	higher than 275
74.2	70.0	-
83.4	85.5	230
89.6	112	176

Water + 2-Methylpiperidine ($C_6H_{13}N$)

Flaschner and Mac Ewen, 1908

%	sat.t. lower	higher
72.3	165	-
64.7	112	-
60.4	-	221.0
52.4	94	225
47.0	88.8	-
39.7	87	-
33.7	87.2	-
29.2	83	-
28.3	-	227
24.0	81	-
20.1	-	227
19.4	79.3	-
15.0	-	220
13.8	79.8	-
10.6	80.4	-
9.7	-	188
9.5	82.4	-
8.6	86.5	-
8.2	-	171
7.8	92.4	-

Water + 3-Methylpiperidine ($C_6H_{13}N$)

Flaschner, 1909

%	sat.t. lower	sat.t. higher
74.8	142.2	184.0
70.1	115.0	204.0
58.2	82.0	226.5
50.5	69.8	232.0
38.1	59.9	234.0
29.2	57.5	235.0
19.2	56.9	228.5
9.9	58.1	197.0
4.8	80.0	143.0

Water + 4-Methylpiperidine ($C_6H_{13}N$)

Flaschner, 1909

%	sat,t. lower	sat,t. higher
57.5	133.0	168.5
55.0	122.7	-
49.4	106.9	183.6
42.4	95.5	187.5
36.2	88.8	189.5
30.0	85.9	188.8
23.7	84.9	186.2
16.0	85.1	178.0
11.6	87.6	157.8
8.9	94.2	146.0

Water + 1-Ethylpiperidine ($C_7H_{15}N$)

Flaschner, 1908

%	sat.t.	%	sat.t.
0.9	homogeneous	28.5	7.45
1.7	64	34.0	7.5
2.1	52.5	38.8	7.7
3.4	34.7	46.1	7.9
4.1	29.2	50.8	8.7
5.3	22.7	62.8	11.4
6.6	17.6	77.0	16.6
8.3	13.1	84.3	21.9
10.0	10.5	92.9	40
12.4	8.7	95.3	69
15.8	7.8	97.0	homogeneous
21.6	7.45		

Water + 1-Propylpiperidine ($C_8H_{17}N$)

Flaschner, 1908

%	sat.t.	%	sat.t.
0.6	+32.0	97.4	+ 9.5
1.4	+11.0	97.9	+15.5
2.7	+ 0.5	98.4	+30.0
3.2	- 3.0		

Water + Azacyclooctane ($C_7H_{15}N$)

Müller and al., 1952

%	sat.t.	%	sat.t.
2	40	10	-11
3	20	18	-13
5	0	$L_1 + L_2 + C$	
30	-13	70	+22
40	- 9	80	36
50	0	86	46
60	+10		

Water + Pyridines

Lecat, 1949

2nd Comp. Name	Formula	b.t.	Az %	Az b.t.
Pyridine	C_5H_5N	115.4	57	92.6
Methyl-2-pyridine	C_6H_7N	129.5	52	93.5
Pyrazine	$C_4H_9N_2$	114	60	95.5
Piperidine	$C_5H_{11}N$	106	65	92.8
Nicotine	$C_{10}H_{14}N_2$	246	2.5	99.99

Water + Pyridine (C_5H_5N)

Heterogeneous equilibria .

Ewert, 1936

mol %	p 20°	p 25°	p 30°	p_2 30°	p_1 30°
0.0	17.5	23.7	31.9	-	31.9
10.0	22.5	29.3	38.8	9.6	29.2
20.0	22.6	29.6	39.3	12.1	27.2
30.0	22.6	29.7	39.3	13.9	25.4
40.0	22.7	29.8	39.4	15.7	23.5
50.0	22.6	29.8	39.2	17.2	21.7
60.0	22.4	29.3	38.3	19.0	19.3
70.0	21.9	28.5	37.2	21.0	16.2
80.0	20.8	27.2	35.2	23.0	12.2
90.0	19.1	24.9	32.0	25.2	6.8
100.0	16.7	21.2	27.8	27.8	-

Ibl, Dändliker and Trümpler, 1954

mol %	p	p_2	p_1
	50°		
0	92.5	0	92.5
1.1	103.6	12.1	91.5
3.6	110.9	20.8	90.1
7.4	113.4	23.6	89.8
14.6	115.0	26.3	88.7
22.4	115.1	28.8	86.3
32.7	115.1	33.2	81.9
43.0	113.2	39.2	74.0
49.4	111.6	42.6	69.0
58.2	108.9	48.2	60.7
68.9	103.0	54.1	48.9
80.2	95.4	60.1	35.3
83.9	92.7	62.5	30.2
88.5	89.3	64.7	24.6
93.2	83.7	68.1	15.6
100	72.1	72.1	0
	80°		
0	356.0	0.0	356.0
1.1	408.9	56.0	352.9
2.4	420.5	71.9	348.6
5.0	430.8	86.6	344.2
8.7	436.7	94.3	342.4
13.7	439.4	99.3	340.1
20.0	441.7	106.0	335.7
26.8	443.4	112.6	330.8
34.0	439.5	122.2	317.3
41.7	435.3	134.1	301.2
48.9	428.1	143.0	285.1
58.6	415.4	157.4	258.0
68.7	391.0	177.1	213.9
76.5	366.0	193.6	172.4
82.0	344.0	203.0	141.0
94.7	283.7	232.4	51.3
100	244.0	244.0	0

Az : 1) at 50° 26 mol % p = 115 mm
2) at 80° 25 mol % p = 444 mm

mol % L	mol % V	mol % L	mol % V
	50°		
0	0	49.4	38.2
1.1	11.7	58.2	44.2
3.6	18.7	68.9	52.5
7.4	20.8	80.2	63.0
14.6	22.9	83.9	67.4
22.4	25.0	88.5	72.5
32.7	28.9	93.2	81.3
43.0	34.6	100	100
	80°		
0	0	41.7	30.8
1.1	13.7	48.9	33.4
2.4	17.1	58.6	37.9
5.0	20.1	68.7	45.3
8.7	21.6	76.5	52.9
13.7	22.6	82.0	59.0
20.0	24.0	94.7	81.9
26.8	25.4	100	100
34.0	27.8		

Jones and Speakman, 1921

d(25°)	p	b t
	Az	
1.00315	767.0	93.0
.00313	633.5	87.7
.00311	483.0	80.8
.00316	358.5	73.7
.00316	235.5	64.2

Kaiser, 1956

p	t		p	t
760	92.7	Az	50	34.3
160	58.1		40	29.9
157	57.9		30	26.1
138	53.7		15	16.9
70	36.9			

Zawidszki, 1900

mol % L	mol % V	p	p_1	p_2
		80°		
100	100	238.9	0	238.9
89.18	65.12	312.9	109.1	203.8
81.47	52.62	344.7	163.3	181.4
74.73	44.56	367.8	203.9	163.9
72.42	44.00	373.8	209.3	164.5
54.13	33.46	415.2	276.3	138.9
42.41	28.78	431.0	307.0	124.0
33.64	25.60	439.1	325.8	113.3
21.58	24.42	441.0	333.3	107.7
16.05	23.78	440.6	335.9	104.7
10.88	23.54	437.9	334.8	103.1
7.32	22.35	432.7	336.0	96.7
4.58	21.78	428.9	335.5	93.4
0.18	2.45	356.8	348.0	8.8
0	0	355.0	355.0	0

Pickering, 1893

%	f.t.	%	f.t.
2.400	-0.51	57.869	- 9.66
4.587	-0.96	60.071	-10.91
7.698	-1.46	62.238	-12.95
10.533	-1.76	64.845	-15.95
12.829	-2.09	67.584	-20.3
15.712	-2.39	69.294	-24.7
18.083	-2.57	70.621	-26.5
21.550	-2.82	71.838	-28.75
25.014	-3.10	73.771	-33.5
28.184	-3.36	73.771 (sic)	-32.9
34.210	-3.88	75.990	-35.0
38.423	-4.37	76.806	-37.1
42.391	-4.77	77.575	-38.5
44.584	-5.37	78.633	-40.5
47.441	-5.83	80.090	-45.75
50.344	-6.67	81.191	-48.5
52.717	-7.66	83.066	-54.0
55.412	-8.47	100.000	-49.8

Baud, 1909

%	f.t.	%	f.t.
5.2	- 0.5	70.0	-25.0
11.2	- 1.1	71.4	-27.5
16.0	- 1.75	74.3	-31.0
20.0	- 2.15	75.3	-32.0
24.0	- 2.5	75.8	-32.0
30.4	- 3.0	79.0	-39.0
37.5	- 4.0	81.0	-45.0
44.5	- 5.5	84.0	-60.0
50.0	- 6.5	85.7	-62.5
54.0	- 8.0	89.5	-54.5
59.4	-11.0	93.0	-49.5
65.1	-15.5	97.0	-42.0
67.7	-19.0	100.0	-38.0

%		%	
C	L	C	L
9.4	11.2	55.0	59.4
17.0	20.0	64.4	67.7
21.2	24.0	69.0	70.0
34.6	37.5		

Timmermans, 1911

%	f.t.	%	f.t.
0	0	62.80	-15.15 and -15.35
4.56	- 0.97	63.00	-15.3
10.10	- 1.77	67.08	-22.4
15.37	- 2.40	73.20 (?)	-31.05
20.37	- 2.92	76.55	-37.05
26.09	- 3.12	80.15	-43.0
31.54	- 3.95	84.15	-53.9 and -54.1
36.95	- 4.55	87.43	-63.25
42.48	- 5.37	90.09	-57.2
47.66	- 6.85	95.10	-49.8
52.52	- 8.15	100	-41.8
57.46	-11.15 and -11.21		

Blanksma, 1912

c	f.t.
0.240	-21.8
(1+1)	
0.090	0
0.187	-15
0.412	-32.8

Kornfeld, 1915

%	f.t.	%	f.t.
1.038	-0.236	9.214	-1.717
3.051	-0.660	10.510	-1.913
4.935	-1.021	13.294	-2.249
5.211	-1.078	14.439	-2.375
7.402	-1.441	17.790	-2.705

Pariselle, 1921

No hydrate .

Ewert, 1937

mol %	f.t.	E
10.0	- 2.9	-
20.0	- 9.0	-
30.0	-21.7	-36.4
40.0	-40.2	-
50.0	-55.0	-
60.0	-59.2	-
70.0	-61.9	-
80.0	-54.7	-76.0
90.0	-47.9	-

tr.t. = 35 % E = 56 % (2+1)

Frederic and Rayet, unpublished

%	mol %	f.t.
0	0	0
12.77	3.22	- 2.20
24.98	7.04	- 3.35
31.05	9.26	- 3.85
38.47	12.46	- 4.80
49.19	18.10	- 6.90
59.98	25.46	-12.60
65.87	31.60	-19.40
73.12	38.26	-30.15
80.32	48.20	-44.0
89.79	66.90	-59.0
92.52	73.80	-55.0

E : 87 % -66° tr.t. = -28.4°

Properties of phases . (Density)

Traube, 1896

%	d	%	d
		15°	
1.118	0.99946	18.034	1.00475
3.465	1.00039	35.929	1.00799
7.387	1.00159	100	0.98210

Blanchard, 1904

N	d	N	d
		25°	
0.0	0.9971	1.545	0.9994
0.530	0.9979	2.538	1.0004
1.060	0.9987	4.73	1.0017

Dunstan, Thole and Hunt, 1907

%	d	%	d
		25°	
0.00	0.99717	55.12	1.00423
5.85	.99754	59.98	.00363
9.11	.99877	61.46	.00282
9.85	.99953	64.99	.00295
15.33	1.00119	70.03	.00235
22.55	.00187	75.01	.00027
30.99	.00242	79.80	0.99769
37.06	.00267	87.96	.99101
40.46	.00359	94.96	.98353
50.03	.00365	100.00	.97832

Hartley, Thomas and Applebey, 1908

%	d	%	d
		25.08°	
0.00	0.99705	59.70	1.00297
9.91	.99953	70.34	.00126
19.28	1.00117	80.15	0.99694
29.99	.00234	90.08	.98870
39.84	.00314	95.01	.98311
49.57	.00347	100.00	.97721
		0°	
0.00	0.99987	62.02	1.02352
9.59	1.00577	65.12	.02359
20.50	.01158	69.92	.02343
29.53	.01513	87.07	.01967
39.73	.01858	90.07	.01191
49.84	.02163	100.00	.00127
59.16	.02317		

Dunstan and Thole, 1908

%	d	%	d
		25°	
0.0	0.9972	35.49	1.0023
4.98	.9983	37.67	.0025
10.01	.9993	40.18	.0025
15.09	1.0002	45.03	.0027
15.57	.0003	50.03	.0028
23.87	.0014	55.19	.0026
30.02	.0018	60.08	.0024
35.23	.0025	100.00	0.9763

Baud, 1909

%	d	%	d
		0°	
9.0	1.0055	66.0	1.0237
20.0	.0114	70.4	.0234
28.6	.0148	80.8	.0189
38.6	.0184	90.0	.0122
50.3	.0217	94.0	.0079
62.0	.0237	100.0	0.9999

Schwers, 1911

t	d	t	d
		9.338 %	
11.0	1.00324	63.2	0.98027
33.5	0.99569	73.1	0.97385
53.35	0.98579		
		21.2026 %	
13.7	1.00579	62.1	0.97845
35.65	0.99506	73.0	0.97054
53.55	0.98405		
		29.504 %	
12.2	1.00852	62.2	0.97659
33.6	0.99628	72.2	0.96885
52.85	0.98346		
		40.4126 %	
9.3	1.01238	62.8	0.97363
34.9	0.99520	74.0	0.96410
53.45	0.98112		
		65.797 %	
14.0	1.00989	63.0	0.96544
34.0	0.99279	73.9	0.95478
54.9	0.97341		
		77.836 %	
12.7	1.00778	62.8	0.95952
33.0	0.98905	74.0	0.94802
53.55	0.96910		
		90.0793 %	
9.2	1.00171	63.0	0.94782
33.1	0.97805	73.0	0.93741
53.45	0.95771		
		100 %	
9.3	0.98876	55.55	0.94239
33.8	0.96355	74.8	0.92268

Faust, 1912

mol %	d 0°	d 25°	d 50°	d 80°	d 100°
0	0.9999	0.9969	0.9879	0.9714	0.9572
10	1.0160	1.0024	.9884°	.9689	.9549
20	.0214	.0033	.9850	.9639	.9489
30	.0234	.0019	.9811	.9585	.9435
50	.0179	0.9954	.9732	.9485	.9322
70	.0109	.9879	.9649	.9386	.9207
100	.0013	.9769	.9530	.9243	.9049

Denison, 1912

%	d	%	d
	25°		
0	0.99707	70.34	0.99833
19.28	0.99824	80.15	0.99802
29.99	0.99940	90.08	0.99577
49.57	1.00053	100	0.9743
59.70	1.00003		

Mathews and Cooke, 1914

t	d		t	d
0	1.02278	67 %	55	0.9733
25	1.00074		70	0.9588
40	0.9871			

Holmes, 1918

%	d	%	d
	15.5°		
100.00	0.9871	49.88	1.0105
87.20	1.0006	30.72	1.0078
70.11	1.0101	12.78	1.0036

Jones and Speakman, 1921

%	d	%	d
	25°		
100	0.9776	40	1.0029
90	.9888	30	.0020
80	.9979	20	.0008
70	1.0018	10	0.9991
60	.0028	0	.9971
50	.0032		

Faust, 1926

mol %	d
	22°
50	0.996

Burrows, 1927

%	d	%	d
	25°		
0	0.99707	64.51	1.00232
11.74	0.99987	80.22	0.99674
37.84	1.00274	100	0.97705

Griffiths, 1952

%	d	%	d
	25°		
0	0.99706	57.46	1.00307
5.07	0.99836	59.38	1.00280
10.13	0.99938	66.49	1.00212
19.86	1.00017	75.06	0.99963
25.54	1.00161	82.03	0.99611
30.05	1.00204	86.02	0.99309
35.58	1.00253	89.38	0.98975
42.00	1.00281	94.08	0.98463
50.21	1.00326	100.00	0.97800

Viscosity and surface tension .

Blanchard, 1904

N	η	N	η
	25°		
0.0	895	1.545	1278
0.530	1024	2.538	1554
1.060	1177	4.73	2135

Dunstan, Thole and Hunt, 1907

%	η	%	η
	25°		
0.00	891	55.12	2147.2
5.85	934	59.98	2200.4
9.11	1099.7	61.46	2215.5
9.85	1109.7	64.99	2243.8
15.33	1246.0	70.03	2191.3
22.55	1402.7	75.01	2115.1
30.99	1691.6	79.80	1920.1
37.06	1788.6	87.96	1442.4
40.46	1863.0	94.96	1081.0
50.03	2051.5	100.00	877.5

Hartley, Thomas and Applebey, 1908

%	η	%	η
	25.08°		
0.00	890	70.34	2186
9.91	1116	80.15	1894
19.28	1336	90.08	1350
29.99	1598	95.01	1064
39.84	1833	97.16	979
45.57	2032	98.02	942
59.70	2187	99.00	917
66.65	2225	100.00	885
	0°		
0.00	1778	69.92	5416
9.59	2447	75.75	4905
20.50	3218	80.07	4262
29.53	3840	85.13	3298
39.73	4548	90.07	2398
49.84	5147	95.11	1729
59.16	5521	97.84	1463
62.02	5562	100.00	1321
65.12	5560		

Dunstan and Thole, 1908

%	η	%	η
	25°		
0.00	891	35.49	1778
4.98	910	37.67	1830
10.01	1135	40.18	1884
15.09	1262	45.03	2005
15.57	1270	50.03	2106
23.87	1485	55.19	2194
30.02	1620	60.08	2259
35.23	1780	100.00	879

Denison, 1912

%	η	%	η
	25°		
39.84	1833	70.3	2186
59.7	2187	80.1	1894
66.7	2225		

Faust, 1912

mol %	η					
	0°	18.3°	25.1°	55.5°	77°	100°
0	1770	1030	890	500	380	280
10	4100	1820	1670	810	530	380
20	5290	2420	2090	970	650	450
25	5530	2670	2180	1010	670	480
30	5550	2810	2220	1010	680	490
40	5070	2640	2070	1000	690	520
60	3050	2060	1570	890	630	490
80	1790	1480	1090	740	570	435
90	1490	1300	950	670	530	410
100	1330	1170	880	600	500	400

Mathews and Cooke, 1914

t	η	t	η
	67 %		
0	5730	55	1052
25	2280	70	793
40	1469		

Hartley, Thomas and Applebey, 1908

%	σ	
	25°	0°
0	71.78	75.49
4.92	55.6	59.3
10.20	52.8	55.9
30.22	47.9	51.8
40.00	47.4	51.3
49.27	46.6	50.5
60.16	45.8	49.6
79.73	43.7	47.4
89.80	41.0	44.5
100.00	37.0	40.15

Somogyi, 1916

%	t	a^2
35.929	15.6	4.727
18.034	16.0	4.876
7.387	15.8	5.284
3.465	15.8	5.827
1.118	15.8	6.579

mol %	a^2
0.5	5.720
0.25	6.220
0.125	6.600

Faust, 1926

mol %	σ
	22°
50	47.60
100	38.23

Teitelbaum, Ganelina and Gortalova, 1951

mol %	σ			
		0°	5°	10°
0		75.70	74.96	74.27
1		59.34	58.88	58.19
3		53.83	53.06	52.45
5		52.37	51.61	50.76
10		50.84	50.23	49.46
20		49.69	49.00	48.32
40		46.44	45.71	45.10
60		43.49	42.80	42.04
80		41.27	40.58	39.89
100		39.05	38.43	37.82
	15°	20°	25°	30°
0	73.51	72.74	71.98	71.21
1	57.58	56.81	55.97	55.28
3	51.68	50.84	50.08	49.23
5	50.00	49.31	48.54	47.70
10	48.70	47.86	47.09	46.40
20	47.47	46.63	45.86	44.95
40	44.26	43.57	42.96	42.11
60	41.42	40.74	40.05	39.28
80	39.20	38.51	37.82	37.21
100	37.06	36.37	35.68	34.99
	35°	40°	45°	50°
0	70.37	69.52	68.76	67.92
1	54.75	54.13	53.44	52.83
3	48.54	47.86	47.09	46.32
5	46.94	46.17	45.41	44.72
10	45.48	44.79	44.03	43.34
20	44.26	43.57	42.73	41.88
40	41.42	40.66	39.82	39.13
60	38.59	37.82	37.21	36.52
80	36.60	35.83	35.14	34.46
100	34.38	33.77	33.00	32.31

Optical and electrical properties and thermal constants.

Zawidzki, 1900

%	n_D	%	n_D
	25.2°		
100	1.50677	50.97	1.42591
96.14	.50137	41.54	.40874
91.39	.49475	31.18	.38981
81.43	.47976	20.99	.37122
71.50	.46295	11.77	.35433
60.36	.44306	0	.33266

Baud, 1909

%	n_D	%	n_D
	16 - 17°		
0.0	1.3335	66.0	1.4574
20.0	.3707	70.4	.4662
28.6	.3882	80.8	.4828
38.6	.4052	90.0	.4971
50.3	.4271	100.0	.5126
62.0	.4470		

Fryer P.Y. and C.H., 1919

%	n_D	%	n_D	%	n_D
			15°		
100	1.5136	66	1.4635	32	1.3966
99	.5128	65	.4616	31	.3947
98	.5119	64	.4597	30	.3927
97	.5109	63	.4577	29	.3907
96	.5099	62	.4557	28	.3888
95	.5088	61	.4537	27	.3868
94	.5077	60	.4516	26	.3849
93	.5065	59	.4496	25	.3829
92	.5053	58	.4475	24	.3809
91	.5041	57	.4454	23	.3790
90	.5028	56	.4434	22	.3770
89	.5015	55	.4414	21	.3750
88	.5002	54	.4394	20	.3731
87	.4988	53	.4375	19	.3712
86	.4974	52	.4356	18	.3692
85	.4960	51	.4337	17	.3672
84	.4945	50	.4317	16	.3652
83	.4930	49	.4297	15	.3632
82	.4915	48	.4277	14	.3612
81	.4900	47	.4258	13	.3592
80	.4884	46	.4239	12	.3572
79	.4867	45	.4219	11	.3552
78	.4850	44	.4200	10	.3532
77	.4833	43	.4181	9	.3512
76	.4816	42	.4162	8	.3492
75	.4799	41	.4142	7	.3473
74	.4782	40	.4123	6	.3454
73	.4764	39	.4103	5	.3435
72	.4746	38	.4084	4	.3416
71	.4728	37	.4064	3	.3397
70	.4710	36	.4045	2	.3378
69	.4692	35	.4025	1	.3359
68	.4673	34	.4005	0	.3341
67	.4654	33	.3986		

Ibl, Dändliker and Trümpler, 1954

mol%	n_D	mol%	n_D
	50°		
0	1.3331	49.4	1.4816
1.1	.3411	58.2	.4891
3.6	.3591	68.9	.49614
7.4	.3808	80.2	.50192
14.6	.4123	83.9	.50359
22.4	.4363	88.5	.50544
32.7	.4587	93.2	.50723
43.0	.4745	100	.50954
	80°		
0	1.3331	41.7	1.4728
1.1	.3432	48.9	.4800
2.4	.3510	58.6	.4894
5.0	.3675	68.7	.49596
8.7	.3876	76.5	.50015
13.7	.4090	82.0	.50271
20.0	.4300	94.7	.50770
26.8	.4468	100	.50954
34.0	.4608		

Hartley, Thomas and Applebey, 1908

mol %	κ 0°	κ 25°	mol %	κ 0°	κ 25°
0.00	0.015	0.022	63.77	0.003	0.006
5.91	.046	.085	73.76	.006	.007
14.47	.031	.057	81.27	.005	.009
31.28	.018	.041	83.98	.004	.006
40.64	.011	.023	89.75	.003	.004
46.67	.007	.012	100.00	.002	.003
54.35	.011	.012			

Trifonov and Ust-Kachkintsev, 1948

mol %	κ after 1 day	14 days	30 days	60 days
		0°		
0	0.0212	0.0228	0.0235	0.024
2.5	.155	.205	.372	.389
5.0	.168	.255	.430	.455
7.5	.135	.185	.344	.358
10.0	.102	.171	.231	.271
12.0	.086	-	-	.245
14.0	.060	0.194	-	.194
15.0	.0854	.166	0.210	.218
16.0	.077	-	-	.214
18.0	.070	-	-	.188
20.0	.060	0.104	0.126	.154
25.0	.053	.083	.096	.102
30.0	.041	.061	.079	.087
35.0	.036	.061	.075	.084
40.0	.053	.075	.084	.085
42.5	.045	.062	.078	.080
45.0	.037	.050	.060	.063
47.5	.041	.055	.064	.068
50.0	.047	.064	.067	.071
55.0	.043	.051	.056	.053
60.0	.024	.031	.034	.034
65.0	.029	.028	.031	.031
70.0	.025	.0251	.0342	.036
75.0	.0198	.0223	.0286	.0306
80.0	.0176	.0221	.0212	.0275
85.0	.0156	.0182	.0202	.0210
90.0	.0137	.0160	.0173	.018
95.0	.0076	.0082	.0098	.0098
100.0	.0025	-	-	-

mol %	κ 25°	κ 50°	mol %	κ 25°	κ 50°
0	0.046	0.061	42.5	0.151	0.234
2.5	.942	1.501	45.0	.124	.196
5.0	1.154	.885	47.5	.132	.205
7.5	0.896	.454	50.0	.138	.213
10.0	.669	.140	55.0	.098	.149
12.0	.572	0.944	60.0	.063	.095
14.0	.427	.677	65.0	.0493	.0725
15.0	.508	.785	70.0	.0577	.0832
16.0	.504	.777	75.0	.0470	.0670
18.0	.432	.658	80.0	.0418	.0508
20.0	.348	.558	85.0	.0298	.0408
25.0	.230	.356	90.0	.0243	.0295
30.0	.195	.328	95.0	.0118	.0133
35.0	.181	.300	100.0	-	.0031
40.0	.177	.280			

Ghosh, 1920

%	ε 0°	ε 18°
100	12.5	-
96.0	13.0	12.5
92.5	15.3	16.0
80.0	22.9	21.0
67.0	27.7	25.1
60.0	40.0	37.0
40.0	56.4	52.2
20.0	68.3	64.1

Trew and Spencer, 1931

mol %	χ	mol %	χ
	15°		
0	-0.72	60	-0.66
10	-0.625	70	-0.725
20	-0.55	80	-0.765
30	-0.55	90	-0.815
40	-0.575	100	-0.85
50	-0.615		

Baud, 1909

%	Q dil (by 100g)		%	Q dil (by 100g)
20	0.28	12-13°	68	1.31
30	0.43		69	1.36
40	0.60		70	1.40
50	0.83		80	1.92
60	1.06		90	2.64
66	1.24			

%		Q mix 100g.	Q mix 100cc
20	12°-13°	0.434	0.439
30		0.641	0.651
40		0.828	0.844
50		0.955	0.976
60		1.082	1.107
66		1.116	1.1425
68		1.1176	1.144
69		1.103	1.129
70		1.099	1.125
80		0.936	0.954
90		0.573	0.580

Water + α-Picoline (C_6H_7N)

Jones and Speakman, 1921

Az p	Az b.t.
753	93.5
653	89.5
572.5	86.4
401.5	77.5
194	61.5

d Az = 0.99318 at 25° and 52 %

Dunstan, Thole and Hunt, 1907

%	d	%	d
	25°		
0.00	0.99717	68.67	0.98842
10.28	.99723	89.59	.96550
23.05	.99678	100.00	.94099
49.51	.99523		

Jones and Speakman, 1921

%	d	%	d
	25°		
100	0.9404	40	0.9952
90	.9637	30	.9960
80	.9787	20	.9965
70	.9867	10	.9968
60	.9911	0	.9971
50	.9936		

%	sat.t.	%	sat.t.
15.99	150	55.11	27.2
23.14	150	67.96	23.0
30.92	68.5	79.54	23.0
37.50	53.0	93.00	35.0
45.14	39.0	95.06	54.3

Lower C.S.T. = 22.5 84 %

Dunstan, Thole and Hunt, 1907

%	η	%	η
	25°		
0.00	891	68.67	3165.6
10.28	1206.6	89.59	1736.2
23.05	1710.6	100.00	791.89
49.51	2778.9		

Water + β-Picoline (C_6H_7N)

Jones and Speakman, 1921

Az p	Az b.t.
768	96.2
596	89.6
450	82.2
425.5	80.8
270	70.0

d Az = 0.99247 at 25° and 39 %

Herington, 1951

Az p	Az %	Az b.t.
700	61.4	94.1 - 94.3
760	61	96.8

Flaschner, 1909

%	sat.t. lower	sat.t. higher
59.7	83.5	133.3
52.3	63.3	146.5
42.3	53.7	151.0
35.5	51.4	152.0
26.4	49.4	152.5
16.4	54.5	140.0
12.7	61.0	125.7

Dunstan, Thole and Hunt, 1907

%	d
	25°
0.00	0.99717
10.00	.99617
19.80	.98981
68.55	.98396
88.71	.96348
100.00	.93895

Jones and Speakman, 1921

%	d	%	d
	25°		
100	0.9515	40	0.9924
90	.9675	30	.9938
80	.9778	20	.9950
70	.9845	10	.9962
60	.9881	0	.9971
50	.9905		

Dunstan, Thole and Hunt, 1907

%	η
0.00	891
10.00	1202.4
19.80	1604.2
68.55	3291.2
88.71	1971.7
100.00	872.28

Water + γ-Picoline (C_6H_7N)

Herington, 1951

p	Az %	b.t.
700	36.5	94.6 - 94.8
760	-	97.2

Water + 2-Ethylpyridine (C_7H_9N)

Cox, 1954

%	sat.t. lower	sat.t. higher
88	105	105
85	50	160
75	15	205
65	5	225
55	- 3	230
45	- 5	230
35	- 6	230
25	- 6	225
15	- 2	215
5	+10	160
2	65	65

Water + 4-Ethylpyridine (C_7H_9N)

Cox, 1954

%	sat.t. lower	sat.t. higher
80	90	90
70	15	160
60	- 5	175
50	-15	180
40	-20	180
30	-21	180
20	-20	178
10	-15	170
8	+50	50

Water + 2,3-Lutidine (C_7H_9N)

Cox, 1954

%	sat.t. lower	sat.t. higher
74	110	110
65	50	175
60	40	185
50	25	190
40	20	195
30	18	194
20	18	185
10	20	155
5	80	80

Water + 2,4-Lutidine (C_7H_9N)

Kortüm and Hang, 1956

mol % L	mol % V		p
100	100	71.5°	42
74.2	20.10		164
48.45	10.76		235
38.32	8.07		253
24.19	7.42		260
16.52	7.27		260
7.35	7.25		258
2.40	7.50		261
0.0	0.0		247

Andon and Cox, 1952

%	sat.t. lower	sat.t. higher
70	120	120
67.5	75	160
60	50	180
52.5	35	187
45	28	188
35	25	188
25	24	187
15	27	177
10	30	152
7.5	35	145
6	65	65

Kortüm and Hang, 1956

mol %	sat.t
22.81	58.1
16.31	37.4
7.92	23.0
7.24	22.8
5.40	22.5
2.09	25.8
0.93	51.6

mol %	molar volume	mol %	molar volume
20°			
100.00	114.99	27.05	42.949
87.48	102.24	20.09	36.455
66.84	81.505	5.92	23.450
49.79	64.700	1.04	18.989
30.96	46.621	0.00	18.048
45°			
100.00	117.83	21.06	38.201
87.48	104.79	11.57	29.163
72.47	89.318	1.04	19.169
49.79	66.348	0.00	18.194
36.93	53.581		
71.5°			
100.00	120.92	21.06	39.237
87.82	107.96	7.54	25.881
72.47	91.763	2.29	20.698
50.21	68.583	0.54	18.973
36.93	55.117		

mol %	f.t.
66.05	-36
57.53	-23
47.39	-13
33.05	- 5.0
10.10	- 0.3
0.70	- 0.1
0.00	0.0

mol %	n_D	mol %	n_D
20°			
100.0	1.50086	15.88	1.43268
66.05	.49575	10.10	.40843
47.39	.48695	0.87	.34240
33.05	.47192	0.20	.33507
23.93	.45559	0.0	.33296

mol %	Q mix	mol %	Q mix
20°			
91.32	-105	21.24	-352
77.41	-292	12.97	-250
57.13	-424	7.00	-160
38.44	-512	5.50	-122
25.79	-393	1.63	- 48.6
45°			
92.57	- 68.9	8.00	- 89.2
74.31	-198	1.45	- 25.6
48.12	-251	0.57	- 9.8
29.81	-212	0.55	- 9.6
16.57	-141		
71.5°			
84.93	- 81.5	9.66	- 68.3
75.65	-136	3.56	- 30.1
51.47	-165	2.79	- 22.5
42.53	-155	1.73	- 12.5
26.67	-132	0.43	- 0.8
150°			
41.80	+104	4.27	+ 16.1
4.30	+ 17.0		

Water + 2,5-Lutidine (C_7H_9N)

Andon and Cox, 1952

%	sat.t. lower	sat.t. higher
77.5	120	120
75	75	155
70	50	182
60	28	200
50	19	206
40	15	207
35	15	207
25	14	206
15	15	190
10	17	173
2.5	70	70

Water + 2,6-Lutidine (C_7H_9N)

Herington, 1951

Az	p	%	b.t.
	700	48.5	93.3 - 93.5
	760	-	95.6

Andon and Cox, 1952

%	sat.t. lower	sat.t. higher
82.5	130	130
80	90	180
75	70	202
60	44	226
50	36	230
40	35	231
35	35	230
25	35	226
20	35	222
10	43	184
5	53	140
4	90	90

Flaschner, 1909

%	sat.t. lower		sat.t. higher	
79.1				
66.9	92.2		130.5	
54.8	59.3		157.0	
46.4	50.2		161.6	C.S.T.
40.6	47.7		163.4	"
33.8	45.4	C.S.T.	164.9	
27.2	45.3		164.0	
18.1	48.1		153.5	
12.1	57.7		132.7	
9.5	74.5		105.0	

Coulson and Jones, 1946

%	sat.t.	%	sat.t.
12	38	36	34
15	35.5	45	35.8
20	34.1	54	40
28	33.9	58	42.8

Cox and Herington, 1956

% wt	% mol	sat.t.
20.84	4.24	34.34
22.69	4.70	34.19
25.38	5.41	34.105
27.63	6.03	34.075
29.75	6.65	34.06
31.49	7.17	34.095
33.59	7.84	34.12
35.87	8.60	34.23
36.78	8.91	34.28
38.02	9.35	34.41

Water + 3,4- Lutidine (C_7H_9N)

Cox, 1954

%	sat.t. lower	sat.t. higher
68	90	90
60	30	150
50	10	160
40	0	165
30	-5	162
20	-5	158
10	0	140
5	+55	55

Water + Collidine ($C_8H_{11}N$)

Timmermans and Kohnstamm, 1907

C.S.T. = 1.3 Limits of P (1-200 kg/cm²)

dt/dp = +0.0045

Merzlin, 1935

%	d	%	d
	15°		
100	0.9302	43.1	0.9698
80	.9424	30.03	.9797
64.79	.9523	0.14	.9987

%	η	%	η
	15°		
100	111.10	43.1	588.6
80	187.02	30.03	788.8
64.79	294.00	0.14	116.0

mol %	σ 0°	σ 30°	σ 60°	σ 80°
100	34.75	31.20	27.82	25.67
80	35.89	32.07	28.35	26.09
64.79	36.88	33.14	28.67	26.25
50	38.48	34.40	29.44	-
43.1	38.60	34.82	29.7	26.97
30.03	39.70	35.73	-	-
17.3	40.81	-	-	-

Water + 2,4,6-Collidine ($C_8H_{11}N$)

Lattey, 1907

t	p 6°	p 52.90°	p 58.68°	p 85.74°
10	9.1	9.8	-	-
15	12.7	13.0	13.1	-
20	18.2	17.6	17.85	17.5
25	24.6	24.2	24.1	14.4
30	33.1	32.3	32.3	32.9
35	44.2	43.4	42.9	43.2
40	57.7	56.3	56.45	57.0
45	74.8	74.1	73.6	74.8
50	96.4	95.2	95.0	96.0
55	122.3	120.9	121.9	124.0
	$L_1 + L_2$			

t	p 95.8°	p 98.7°	p 100°
10	-	-	2.7
15	10.4	7.9	3.3
20	14.3	10.9	4.1
25	19.3	15.1	5.2
30	26.6	20.8	6.3
35	36.1	28.7	7.7
40	49.0	38.1	9.4
45	65.6	50.5	11.7
50	85.8	67.2	14.8
55	111.5	87.4	18.9
60	-	-	23.8
65	-	-	31.0

Rothmund, 1898

%	sat.t. lower	sat.t. higher
1.75	54.25	108.0
2.16	36.32	137.1
2.73	28.07	153.8
4.18	17.10	190
4.78	15.10	-
6.71	11.07	-
8.58	8.97	-
13.76	6.95	-
21.18	6.42	-
33.16	7.22	-
45.97	12.68	-
55.82	21.15	-
60.96	27.30	-
68.12	37.27	-
74.97	49.10	195
85.22	76.85	173
87.29	83.75	164
87.60	95.50	162.7

Water + Quinoline (C_9H_7N)

Schwers, 1911

t	d	t	d
	95.5024 %		
7.9	1.10461	61.9	1.06080
34.1	.08389	74.2	.05052
53.5	.06771	95.4	.03225
	89.4406 %		
10.7	1.10260	61.0	1.06107
32.2	.08560	70.9	.05281
52.1	.06873	94.3	.03130
	82.3409 %		
8.8	1.10101	51.85	1.06424
32.7	.08118		
	100 %		
8.2	1.10255	53	1.06725
32.1	.08407	73.5	.05090

Water + Hexamethylene-imine ($C_6H_{13}N$)

Silberman and Skorikova, 1953

t	% L1	% L2
66.9 C.S.T.	22.5	22.5
70	36.8	10.0
80	49.6	6.8
90	57.5	5.8
100	62.4	5.7
110	65.5	5.7
120	67.5	5.7
130	68.9	5.7
140-160	70.3	5.7
170	70.3	5.8
180	70.3	6.0
190	70.0	6.8
200	68.0	9.8
210	62.5	15.5
220	53.0	23.9
228 C.S.T.	39.5	39.5

Water + Hexamethylene tetramine ($C_6H_{12}N_4$)

Evrard, 1929

%	f.t.	%	f.t.
3.71	- 0.56	23.0	- 5.70
5.80	- 0.90	27.6	- 8.00
10.5	- 1.80	28.8	- 8.30
19.8	- 4.00	29.8	- 9.00
	Hydrate		
30.5	- 6.0	42.0	+ 9.2
30.8	- 5.0	43.3	+10.8
34.8	0.0	45.0	+12.0
40.5	+ 7.0	46.8	+13.0
	Amine		
47.3	- 4.0	46.2	+40.0
47.2	- 1.0	46.0	+49.0
47.0	+ 7.0	45.7	+65.0
46.8	+13.0	45.6	+85.0
46.5	+16.0	46.0	+95.0
46.5	+20.0	46.3	+100.0
	Retrograde solubility		
46.8	110.0	50.0	145.0
47.4	115.0	51.0	150.0
48.6	130.0	52.5	165.0

Water + Nicotine ($C_{10}H_{14}N_2$)

Heterogeneous equilibria

Schükarew, 1910

%	p	%	p
	59.6°		
17.22	137.5	59.20	135.7
26.71	133.4	60.46	130.0(sic)
48.90	131.5	72.28	138.1
49.46	132.6	82.10	132.1

Higher C.S.T. = 210°

Lower C.S.T. = 60°

Norton, Bigelow and Vincent, 1940

mol %	p_2	p_1
	25°	
0.000	0.00	-
0.108	0.35	-
0.186	0.45	-
0.281	0.49	-
0.648	1.00	-
1.318	2.27	-
2.00	3.41	-
4.00	4.42	-
5.00	5.7	23.61
9.80	8.1	23.32
12.60	8.8	23.10
26.65	9.7	22.86
33.28	9.3	23.12
40.30	10.5	23.02
47.95	11.2	22.88
55.90	12.5	22.63
61.55	13.8	22.25
65.23	15.4	22.00
68.89	16.3	21.69
79.45	21.4	20.30
80.50	19.6	19.55
82.10	21.7	19.50
82.40	22.1	19.33
84.30	20.7	18.27
85.55	24.7	18.36
87.80	24.5	17.80
89.16	26.7	17.16
91.95	30.9	15.30
92.19	31.7	15.39
92.70	28.2	14.41
94.80	31.4	12.72
95.60	33.0	13.04
96.20	31.1	11.73
96.90	33.0	11.42
97.50	33.6	10.27
98.07	38.2	8.38
98.82	37.5	5.71
99.22	40.5	4.39
99.60	40.2	3.09
100.00	42.5	0.00

Fowler, 1950

b.t.	% L	% V
	110 mm	
67.6	98.0	5.06
59.95	92.8	3.82
-	90.5	2.51
55.3	76.5	2.20
-	76.0	2.24
-	67.7	1.72
-	67.5	1.65
-	57.9	1.43
54.4	55.5	1.49
-	50.8	1.45
-	42.6	1.41
54.3	38.9	1.32
-	35.4	1.31
-	27.5	1.32
53.8	22.3	1.30
-	19.9	1.31
-	16.4	1.29
-	13.4	1.26
-	8.75	1.25
-	7.20	1.12
53.8	6.10	1.07
-	3.98	0.88
-	2.79	0.69
53.5	0	0

b.t.	% L	% V
	760 mm	
206	97.5	40.2
166.0	95.0	18.50
107.8	89.0	6.87
104.0	86.2	5.30
102.5	85.7	4.60
100.1	80.6	4.31
100.1	80.6	4.25
100.1	74.1	4.30
100.1	64.4	4.20
100.1	11.7	4.20
100.1	6.15	4.0
100.0	5.55	3.92
99.95	4.62	3.50
-	4.27	3.40
-	4.20	3.44
-	3.91	3.33
-	3.39	3.40
-	2.87	2.80
99.85	2.58	2.56
-	2.33	2.40
-	2.06	2.16
-	1.67	1.94
99.85	1.54	1.81
-	1.39	1.63
-	1.24	1.46
99.95	1.02	1.26
-	0.92	1.12
-	0.82	1.00
-	0.71	0.88
-	0.47	0.62
-	0.42	0.54
-	0.38	0.47
-	0.27	0.35
-	0.20	0.26
-	0.15	0.20
100.0	0	0

Fowler, 1950

% L	% V	% L	% V
	624 mm		
2.48	2.45	1.51	1.50
2.80	2.35	1.28	1.30
2.52	2.15	1.10	1.12
2.22	1.99	0.72	0.80
1.94	1.84	0.20	0.25
1.79	1.71		
	572 mm		
2.80	2.20	0.80	0.84
2.35	1.98	0.49	0.53
2.05	1.81	0.30	0.34
1.51	1.41	0.20	0.23
0.92	0.93		
	478 mm		
3.60	2.33	1.30	1.12
3.14	2.20	1.10	0.96
2.98	2.12	0.98	0.88
2.62	1.93	0.76	0.72
2.21	1.74	0.61	0.58
1.87	1.50	0.53	0.50
1.54	1.29	0.43	0.40
1.45	1.24	0.27	0.24

Hudson, 1904

%	sat.t. lower	sat.t. higher
6.8	94	95
7.8	89	155
10.0	75	-
14.8	65	200
32.2	61	210
49.0	64	205
66.8	72	190
80.2	87	170
82.0	129	130

Tsakalotos, 1909

%	sat.t. lower	sat.t. higher
5.4	-	-
6.5	92.7	94.5
18.3	64.3	195
33.4	60.8	208
49.6	62.7	204
66.7	71.8	194
71.7	75.8	185
79.2	86.1	168
84.5		

Timmermans and Kohnstamm, 1907

C.S.T. = 61.3 Limits of P (1-200 kg/cm^2)

dt/dp = +0.01

Properties of phases

Landolt, 1876 - 1877

%	d	%	d
	20°		
100	1.01101	34.2854	1.02282
89.9155	.02671	17.6793	.01158
78.3920	.03528	16.3356	.00957
65.9872	.04010	8.9731	.00469
53.4750	.03649	0	0.99823
35.1969	.02421		

Gennari, 1896

%	d	%	d
	20°		
0	0.99823	66.902	1.04146
34.395	1.02325	100	1.01071

Pribram and Hücksmann, 1897

%	d	%	d
	20°		
100	1.0095	35.579	1.0238
86.889	.0299	20.746	.0132
75.131	.0394	10.191	.0054
72.665	.0398	9.099	.0046
71.315	.0399	8.167	.0037
69.117	.0402	6.340	.0026
69.534	.0397	4.733	.0015
64.921	.0396	2.545	.0000
62.812	.0391	1.049	0.9990
59.653	.0382	0.6175	.9987
55.401	.0364	0	.9982
49.301	.0329		

Winther, 1907

%	d				
	0°	10°	20°	30°	40°
100	1.0250	1.0180	1.0100	1.0025	0.9948
51.48	.0479	.0410	.0337	.0262	1.0181
41.15	.0390	.0332	.0275	.0209	.0137
14.15	.0130	.0113	.0083	.0045	.0002
6.96	.0061	.0053	.0031	.0001	0.9962

Tsakalotos, 1909

%	d	%	d
	20°		
0	0.9983	73.9	1.0414
33.4	1.0233	79.2	.0390
49.6	.0342	86.1	.0363
66.7	.0402	100	.0091
71.7	.0417		

Jephcott, 1919

%	d	%	d
	20°		
100	1.00925	41.718	1.02790
95.068	.01823	40.237	.02661
91.084	.02458	38.798	.02592
89.471	.02583	38.065	.02522
88.338	.02810	37.986	.02538
83.336	.03356	35.098	.02341
81.842	.03439	34.877	.02351
77.006	.03784	32.141	.02107
75.538	.03836	30.973	.02048
74.868	.03839	30.637	.02010
69.202	.03990	30.296	.02060
67.538	.03988	28.151	.01820
64.423	.03840	26.473	.01725
63.950	.03894	24.975	.01588
60.773	.03846	20.963	.01300
59.898	.03728	20.726	.01299
59.649	.03765	15.023	.00880
56.241	.03614	12.963	.00492
54.289	.03603	11.508	.00611
53.096	.03463	10.012	.00611
52.969	.03428	9.921	.00494
50.134	.03278	7.417	.00317
48.949	.03194	6.604	.00276
46.632	.03065	4.998	.00153
46.183	.03131	2.505	0.99970
46.015	.03037	0	.99823
44.004	.02936		

t	d	t	d
6.638 %		88.338 %	
20	1.00275	20	1.02810
85	0.96328	90	0.98412

Binchinetti, 1920

%	d				
	0°	10°	20°	30°	40°
15.82	1.0148	1.0128	1.0048	1.0058	1.0012
35.13	.0342	.0296	.0241	.0181	.0118
51.60	.0507	.0442	.0367	.0299	.0210
60.07	.0558	.0486	.0402	.0316	.0230
69.88	.0577	.0496	.0402	.0310	.0213
83.66	.0517	.0430	.0340	.0245	.0150
93.64	.0340	.0304	.0218	.0133	.0049
100	.0258	.0175	.0096	.0014	0.9935

Sata, 1927

%	d 30°	d 40°	d 50°	d 60°
0	0.99567	0.99225	0.98807	-
10	1.00234	.99856	.99453	0.98968
20	.00888	1.00410	.99886	.99353
30	.01513	.00953	1.00381	.99755
40	.02118	.01449	.00784	1.00065
50	.02646	.01903	.01033	.00299
60	.03023	.02156	.01280	.00407
70	.03101	.02228	.01247	.00406
80	.02788	.01830	.00875	0.99979
90	.01773	.00979	.00132	.99280
100	.00124	0.99383	0.98630	.97890

Seyer and Gallaugher, 1930

t	d	t	d	t	d
		5.06 %			
0.09	1.0029	29.90	0.9975	70.30	0.9793
3.10	.0027	40.10	.9939	70.80	.9793
6.20	.0025	41.50	.9940	75.40	.9768
10.20	.0024	51.20	.9894	79.60	.9741
10.30	.0021	52.10	.9893	79.97	.9740
20.20	.0002	60.50	.9847	90.27	.9685
20.80	.0003	60.53	.9845	95.40	.9685
29.70	0.9978				
		9.18 %			
1.00	1.0070	30.70	1.0003	59.70	0.9873
10.27	.0058	40.30	0.9967	69.80	.9817
19.80	.0036	50.60	.9919		
		13.20 %			
0.40	1.0193	19.90	1.0127	40.20	1.0031
0.41	.0192	25.27	.0104	44.92	.0007
7.82	.0172	29.30	.0082	50.60	0.9970
10.30	.0163	30.46	.0080	60.00	.9953
14.85	.0147	35.60	.0056	61.40	.9905
19.67	.0129				
		26.01 %			
0.24	1.0314	20.00	1.0216	39.80	1.0095
1.05	.0313	24.80	.0195	46.20	.0055
7.70	.0284	30.40	.0156	50.30	.0026
10.20	.0268	30.56	.0157	55.86	0.9982
19.90	.0223	35.30	.0130	60.45	.9951
		35.42 %			
0.40	1.0474	20.00	1.0330	40.20	1.0167
1.88	.0467	25.62	.0291	50.40	.0079
10.20	.0403	29.75	.0257	51.20	.0070
11.17	.0403	29.80	.0252	61.20	0.9985
15.50	.0370	34.76	.0218	62.70	.9974
19.75	.0335	39.55	.0172		
		41.91 %			
0.42	1.0540	25.02	1.0327	50.45	1.0091
1.00	.0534	29.17	.0288	60.00	.0002
5.50	.0500	30.10	.0280	60.20	.0006
9.80	.0462	34.97	.0236	69.65	0.9914
10.20	.0462	40.10	.0191	70.00	.9914
19.40	.0376	40.30	.0185	75.05	.9862
19.85	.0374	50.10	.0100	75.90	.9856

Tsakalotos, 1909

%	η	%	η
	20°		
0	1002	73.9	34480
33.4	4637	79.2	35270
49.6	10960	86.1	28470
66.7	25630	100	4535
71.7	32720		

Seyer and Gallaugher, 1930

t	σ	t	σ
	5.06 %		
0.09	57.13	52.10	41.85
6.20	55.25	60.53	38.94
10.30	54.39	70.30	37.11
20.80	52.14	79.97	34.84
29.70	47.91	90.27	33.54
41.50	43.65	95.40	32.30
	13.20 %		
0.41	48.83	30.46	45.31
7.82	48.12	35.60	44.73
14.85	47.23	44.92	42.88
19.67	46.41	60.00	39.52
25.27	46.06		
	26.01 %		
0.24	51.55	30.56	45.68
7.70	50.34	35.30	44.92
19.90	47.54	46.20	42.13
24.80	46.73	55.86	40.06
	35.42 %		
1.88	46.77	29.75	44.00
11.17	46.85	34.76	42.13
15.50	46.48	39.55	41.35
19.75	45.99	51.20	39.62
25.62	45.00	61.20	37.96
	41.91 %		
0.42	47.37	34.97	41.77
5.50	46.75	40.30	40.90
10.20	45.88	50.45	39.67
19.85	44.29	60.00	38.49
25.02	43.30	69.65	37.10
29.17	42.65	75.05	36.58

Landolt, 1876 - 1877

%	n_D	%	n_D
	21°		
100	1.52828	34.2854	1.37686
89.9155	.51523	17.6793	.36685
78.3920	.49700	16.3356	.35156
65.8972	.47246	8.9731	.33451
53.4750	.40692	0	.33298
35.1969	.40228		

Levi, 1905

%	t	n_D
100	25	1.52682
88.66	24.8	.51215
79.65	25.4	.49724
73.04	24.6	.48552
66.78	24.5	.47277
63.30	24.0	.46602
57.17	23.8	.45324
50.24	23.8	.43789
44.54	24.4	.42576
37.46	23.0	.41073
30.08	25.5	.39472
24.17	22.5	.38327
14.92	23.9	.36321
10.01	22.9	.35336
3.72	22.5	.34058

Fryer P.Y. and C.H., 1919

%	n_D	%	n_D	%	n_D
		15°			
100	1.5300	66	1.4765	32	1.4018
99	.5293	65	.4743	31	.3997
98	.5285	64	.4721	30	.3976
97	.5276	63	.4699	29	.3954
96	.5266	62	.4677	28	.3933
95	.5255	61	.4655	27	.3911
94	.5244	60	.4633	26	.3889
93	.5232	59	.4611	25	.3868
92	.5219	58	.4589	24	.3846
91	.5206	57	.4567	23	.3824
90	.5193	56	.4545	22	.3803
89	.5179	55	.4523	21	.3781
88	.5165	54	.4501	20	.3760
87	.5150	53	.4479	19	.3738
86	.5134	52	.4457	18	.3717
85	.5118	51	.4435	17	.3695
84	.5102	50	.4413	16	.3674
83	.5086	49	.4391	15	.3652
82	.5069	48	.4369	14	.3631
81	.5052	47	.4347	13	.3609
80	.5035	46	.4325	12	.3588
79	.5018	45	.4303	11	.3567
78	.5001	44	.4281	10	.3546
77	.4984	43	.4249	9	.3525
76	.4967	42	.4237	8	.3504
75	.4950	41	.4215	7	.3483
74	.4932	40	.4193	6	.3463
73	.4913	39	.4171	5	.3443
72	.4893	38	.4149	4	.3422
71	.4873	37	.4127	3	.3402
70	.4852	36	.4105	2	.3382
69	.4831	35	.4083	1	.3362
68	.4809	34	.4061	0	.3341
67	.4787	33	.4039		

Tsakalotos, 1909

%	n_D	%	n_D
	20°		
0	1.3329	79.2	1.5009
33.4	.4032	86.1	.5086
49.6	.4388	100	.5289
66.7	.4756		

Landolt, 1876 - 1877

%	$(\alpha)_D$	%	$(\alpha)_D$
	20°		
100	-161.55	34.2854	- 80.78
89.9155	-133.85	17.6793	- 76.94
78.3920	-109.53	16.3356	- 76.88
65.8972	- 94.24	8.9731	- 75.53
53.4750	- 86.58	0	0
35.1969	- 81.38		

Gennari, 1896

%	(α) Red	(α) Yellow (D)	(α) Violet	(α) Pale blue	(α) Dark blue
			20°		
34.395	- 59.49	- 80.18	-103.31	-126.73	-160.25
66.902	- 70.52	- 94.61	-121.62	-146.42	-178.11
100	-123.37	-162.84	-209.78	-250.71	-317.79

Přibram and Hücksmann, 1897

%	$(\alpha)_D$	%	$(\alpha)_D$
	20°		
100.00	-164.91	35.579	- 82.17
86.889	-129.19	20.746	- 79.08
75.131	-103.75	10.191	- 77.55
72.665	-100.27	9.099	- 77.56
71.315	-101.60	8.167	- 77.44
69.117	- 99.13	6.340	- 77.54
69.534	- 97.79	4.733	- 77.34
64.921	- 95.21	2.545	- 77.64
62.812	- 93.76	1.049	- 78.06
59.653	- 91.64	0.6175	- 78.42
55.401	- 89.27	0	-
49.301	- 86.48		

Jephcott, 1919

t	$(\alpha)_D$
6.638 %	
20	-76.82
85	-95.29
88.338 %	
20	-134.16
90	-150.34

%	$(\alpha)_D$	%	$(\alpha)_D$
20°			
100	-168.61	41.718	-86.71
95.068	-153.06	40.237	-85.09
91.084	-141.65	38.798	-83.79
89.471	-138.73	38.065	-85.21
88.338	-134.11	37.986	-84.98
83.336	-123.21	35.098	-83.52
81.842	-121.48	34.877	-83.39
77.006	-111.47	32.141	-81.83
75.538	-108.39	30.973	-82.48
74.868	-108.69	30.637	-82.67
69.202	-100.47	30.296	-82.60
64.423	- 97.82	28.151	-81.95
63.950	- 95.63	26.473	-81.78
60.773	- 94.02	24.975	-81.67
59.898	- 93.69	20.963	-80.64
59.649	- 95.12 (?)	20.726	-80.06
56.241	- 91.27	15.023	-80.99
54.289	- 89.27	12.963	-79.79
53.096	- 90.12	11.508	-79.43
51.969	- 86.91	10.012	-78.66
50.134	- 89.03	9.921	-79.20
48.949	- 88.19	7.417	-79.94
46.632	- 86.23	6.604	-79.25
46.015	- 86.79	4.998	-83.48
44.004	- 86.47	2.505	83.15

LX. WATER + OXYGEN-NITROGEN DERIVATIVES .

Water + Cyanic acid (CHNO)

Linhard, 1938

mol %	f.t.	mol %	f.t.
100.0	- 86.8	49.8	-50.0
83.6	- 93.2	45.0	-42.2
74.9	- 97.2	43.2	-39.6
68.1	-101.0	38.3	-33.9
82.8	- 83.6	33.3	-28.7
58.5	- 68.8	29.3	-23.5
55.3	- 62.0		

Water + Formamide (CH_3NO)

English and Turner, 1915

mol %	f.t.	mol %	f.t.
0	0	40.32	-42.5
3.819	- 2.7	42.87	-45.4
6.670	- 5.7	46.59	-40.4
7.125	- 5.9	49.10	-40.0
11.370	- 9.9	51.62	-37.6
12.41	-11.0	55.54	-33.5
18.11	-16.8	59.64	-29.4
24.67	-23.6	64.03	-25.5
25.92	-24.3	68.35	-21.9
28.88	-27.5	76.98	-14.5
31.76	-31.1	87.68	- 6.40
34.47	-34.7	100	+ 2.20
37.37	-38.9		

Zuber, 1932

%	D 49/0	D 98/0	D 24.5/0	D 98/12.3
18°				
0.4	-	-	1.92	-
0.8	2.05	1.87	2.09	-
1.6	2.08	-	2.00	-
3.1	1.99	1.86	2.09	-
6.1	2.08	1.71	2.02	-
9.2	2.24	1.76	-	-
12.3	2.15	1.57	-	-
13.1	-	-	-	2.17
13.2	-	-	-	1.94
15.4	2.11	1.50	-	1.75
18.4	-	-	-	1.69
24.5	-	1.17	-	1.55
27.6	-	1.14	-	1.56

Jephcott, 1919

t	$(\alpha)_D$
6.638 %	
20	-76.82
85	-95.29
88.338 %	
20	-134.16
90	-150.34

%	$(\alpha)_D$	%	$(\alpha)_D$
20°			
100	-168.61	41.718	-86.71
95.068	-153.06	40.237	-85.09
91.084	-141.65	38.798	-83.79
89.471	-138.73	38.065	-85.21
88.338	-134.11	37.986	-84.98
83.336	-123.21	35.098	-83.52
81.842	-121.48	34.877	-83.39
77.006	-111.47	32.141	-81.83
75.538	-108.39	30.973	-82.48
74.868	-108.69	30.637	-82.67
69.202	-100.47	30.296	-82.60
64.423	- 97.82	28.151	-81.95
63.950	- 95.63	26.473	-81.78
60.773	- 94.02	24.975	-81.67
59.898	- 93.69	20.963	-80.64
59.649	- 95.12 (?)	20.726	-80.06
56.241	- 91.27	15.023	-80.99
54.289	- 89.27	12.963	-79.79
53.096	- 90.12	11.508	-79.43
51.969	- 86.91	10.012	-78.66
50.134	- 89.03	9.921	-79.20
48.949	- 88.19	7.417	-79.94
46.632	- 86.23	6.604	-79.25
46.015	- 86.79	4.998	-83.48
44.004	- 86.47	2.505	83.15

LX. WATER + OXYGEN-NITROGEN DERIVATIVES .

Water + Cyanic acid (CHNO)

Linhard, 1938

mol %	f.t.	mol %	f.t.
100.0	- 86.8	49.8	-50.0
83.6	- 93.2	45.0	-42.2
74.9	- 97.2	43.2	-39.6
68.1	-101.0	38.3	-33.9
82.8	- 83.6	33.3	-28.7
58.5	- 68.8	29.3	-23.5
55.3	- 62.0		

Water + Formamide (CH_3NO)

English and Turner, 1915

mol %	f.t.	mol %	f.t.
0	0	40.32	-42.5
3.819	- 2.7	42.87	-45.4
6.670	- 5.7	46.59	-40.4
7.125	- 5.9	49.10	-40.0
11.370	- 9.9	51.62	-37.6
12.41	-11.0	55.54	-33.5
18.11	-16.8	59.64	-29.4
24.67	-23.6	64.03	-25.5
25.92	-24.3	68.35	-21.9
28.88	-27.5	76.98	-14.5
31.76	-31.1	87.68	- 6.40
34.47	-34.7	100	+ 2.20
37.37	-38.9		

Zuber, 1932

%	D			
	49/0	98/0	24.5/0	98/12.3
18°				
0.4	-	-	1.92	-
0.8	2.05	1.87	2.09	-
1.6	2.08	-	2.00	-
3.1	1.99	1.86	2.09	-
6.1	2.08	1.71	2.02	-
9.2	2.24	1.76	-	-
12.3	2.15	1.57	-	-
13.1	-	-	-	2.17
13.2	-	-	-	1.94
15.4	2.11	1.50	-	1.75
18.4	-	-	-	1.69
24.5	-	1.17	-	1.55
27.6	-	1.14	-	1.56

Merry and Turner, 1914

mol %	d 25°	d 40°
100	1:1279	1.1104
90.13	.1219	.1040
80.04	.1153	.0976
69.20	.1079	.0906
59.97	.1000	.0830
49.97	.0907	.0739
38.89	.0793	.0630
30.03	.0656	.0497
19.98	.0481	.0335
10.01	.0247	.0119
0	0.9971	0.9922

Burrows, 1919

%	d 20°	d 25°
0.73	0.999321	0.998136
1.70	1.000858	.999558
4.10	.004545	1.003115
14.73	.020458	.018488
25.70	.036469	.03397
37.11	.05254	.04963
46.52	.06541	.06226
59.05	.08216	.07859
66.86	-	.08874
75.94	1.10408	.10020
88.27	.11979	.11580
94.82	.12846	.12427
97.48	.13204	.12783
99.77	.13507	.13090
100	.13552	.13126

Ishikawa, 1927

%	d	%	d
	30°		
0	1.0000	59.9488	1.0894
16.7115	.0258	77.4696	.1139
20.3240	.0315	100	.1439
35.0085			

Merry and Turner, 1914

mol %	η 25°	η 40°
100	3359	2379
90.13	2906	2102
80.04	2508	1813
69.20	2142	1545
59.97	1927	1402
49.97	1698	1230
38.89	1463	1091
30.03	1315	949
19.98	1161	835
10.01	1044	734
0	(891)	(653.5)

Water + Diethylformamide ($C_5H_{11}ON$)

Vasenko and Dubrovski, 1953

mol %	d 15°	d 20°	d 25°	d 30°	d 35°	d 40°
0.000	0.9991	0.9982	0.9971	0.9957	0.9941	0.9922
2.5323	.9935	.9922	.9905	.9884	.9863	.9838
4.793	.9913	.9889	.9867	.9839	.9813	.9785
10.040	.9854	.9819	.9786	.9751	.9715	.9676
15.564	.9772	.9732	.9694	.9652	.9611	.9568
19.849	.9716	.9675	.9634	.9588	.9546	.9502
24.961	.9645	.9604	.9566	.9515	.9474	.9429
30.134	.9585	.9541	.9495	.9451	.9405	.9358
39.698	.9483	.9438	.9392	.9347	.9300	.9258
51.791	.9369	.9323	.9279	.9234	.9187	.9144
61.724	.9321	.9274	.9230	.9184	.9130	.9094
69.815	.9251	.9207	.9161	.9118	.9071	.9027
79.306	.9213	.9168	.9123	.9080	.9037	.8991
85.741	.9177	.9131	.9086	.9043	.8997	.8951
94.792	.9120	.9079	.9033	.8988	.8948	.8902
100.00	.9094	.9051	.9009	.8974	.8923	.8879

mol %	d 0°	d 50°	d 70°
0.000	0.9999	0.9881	0.9749
2.535	.9975	-	-
2.669	-	0.9782	0.9628
4.960	-	.9717	.9542
8.384	0.9965	.9630	.9438
15.265	.9899	.9490	.9273
20.053	.9857	.9432	.9202
25.466	.9775	.9332	.9099
33.256	.9713	.9262	.9022
39.981	.9619	.9164	.8924
50.819	.9570	.9059	.8819
58.886	.9460	.9008	.8767
68.347	.9387	.8939	.8705
78.788	.9332	.8891	.8657
85.503	.9294	.8856	.8631
94.792	.9254	.8818	.8596
100.00	.9229	.8793	.8574

mol %	τ (η).10⁴ 15-20	20-25	25-30	30-35	35-40
0.000	2.69	2.49	2.32	2.16	2.03
2.5323	3.19	3.00	2.62	2.58	2.26
4.793	3.72	3.37	3.12	2.77	2.66
10.040	4.24	3.80	3.66	3.11	3.04
15.564	4.32	3.91	3.69	3.39	3.16
19.849	4.40	4.11	3.89	3.43	3.12
24.961	4.34	3.96	3.75	3.33	3.04
30.134	4.08	3.86	3.61	3.24	2.99
39.698	3.85	3.78	3.21	2.77	2.56
51.791	3.07	3.01	2.88	2.75	2.35
61.724	3.00	2.79	2.69	2.53	2.29
69.815	2.69	2.52	2.37	2.10	2.07
79.306	2.44	2.36	2.09	2.05	2.01
85.741	2.22	2.11	2.04	1.85	1.76
94.792	2.04	1.91	1.92	1.64	1.69
100.00	1.94	1.81	1.75	1.63	1.50

Water + Acetamide (C_2H_5ON)

Meldrum and Turner, 1908

g/100cc H_2O	b.t.	g/100cc H_2O	b.t.
12.23	101.125	9.33	100.835
11.13	101.005	7.82	100.675
10.13	100.910		

Speyers, 1902

mol %	f.t.	mol %	f.t.
29.64	0.0	49.62	32.9
34.35	10.6	60.14	45.5
40.72	19.9	77.10	63.0

Jones, 1904 and Jones and Getman, 1904

M	f.t.	M	f.t.
0.4	-0.782	5.0	-11.800
1.0	-1.930	6.0	-15.800
2.0	-4.050	7.0	-20.750
3.0	-6.440	8.0	-26.000
4.0	-9.150	9.0	-32.500

Mortimer, 1923

f.t.	mol %	f.t.	mol %
0	29.6	60	76.0
20	40.8	78.5	100.0
40	55.5		

Carroll, Rollefson and Mathews, 1925

mol %	f.t.
31.7	0.3
42.0	24.5

Wolfers, 1928

%	f.t.	E
0	0	-
5	- 2.1	-
10	- 2.1	-
14.5	- 3.1	-
17	- 3.7	-
23.6	- 5.9	-
28.5	- 9.5	-
33.3	-12.4	-
37.5	-15.5	-
41.4	-17.3	-
44.4	-19.6	-25
52.5	-25	-25
59	-16.1	-24.8
65.06	+ 0.3	-24.5
67.7	+ 9.3	-24.0
72.2	+18.6	-25.0

Chadwell and Politi, 1938

N	f.t.	N	f.t.
0.5453	-0.9920	2.2678	-3.9781
0.6952	-1.2553	2.3971	-4.2090
0.6987	-1.2685	2.9866	-5.1729
1.1163	-2.0058	3.0676	-5.3369
1.8766	-3.3081	3.5720	-6.1794

Albanski, 1949

E : -23.7° 20.6 mol %

Speyers, 1902

mol %	t	d
29.64	0.0	1.055
34.35	15.6	1.045
40.72	31.6	1.032
49.62	49.5	1.010
60.14	68.4	0.989

Jones, 1904 and Jones and Getman, 1904

M	d	M	d
	0°		
0.0	0.999868	5.0	1.018120
0.4	.998008	6.0	.022424
1.0	1.001944	7.0	.026640
2.0	.005784	8.0	.031444
3.0	.009420	9.0	.033028
4.0	.015432		

Kanonnikoff, 1885

%	t	d_t
34.17	25.2	1.01807

Taimni, 1929

%	η 45°	40°	35°	30°	25°
32.0	1530	1730	1980	2300	2650
41.0	1740	1960	2250	2580	3030
54.0	2000	2280	2600	3030	3550
70.0	2280	2600	3000	3500	4150

Öholm, 1913

N	D*	N	D*
		20°	
10	0.685	1	0.890
5	0.795	0.5	0.898
2	0.860	0.25	0.900

* Diffusion ratio (cm^2/day) .

Kanonnikoff, 1885

%	n H_α	D	H_β
		25°	
34.17	1.369937	1.372084	1.377219

Water + Monochloracetamide (C_2H_4ONCl)

Meldrum and Turner, 1908

g/100cc H_2O	b.t.	g/100cc H_2O	b.t.
13.65	100.735	10.81	100.575
12.23	100.655	7.34	100.365

Water + Urea (CH_4N_2O)

Heterogeneous equilibria

Perman, 1905

%	p (0 %)	p
5.05	773.6	760.6
8.08	772.0	751.5
10.90	772.0	743.5
16.98	770.0	728.0
27.08	765.0	720.0

Perman and Price, 1912

t	c	p
60.00	22.24	140.5
60.02	34.99	133.8
69.96	9.65	231.7
70.01	14.79	226.0
70.11	19.61	223.2
69.98	38.95	209.3
70.03	48.71	196.3
70.04	58.45	183.7
89.74	10.11	512.3
89.84	13.22	508.0
89.74	35.25	470.0
90.00	38.44	459.72
90.01	56.89	410.17

mol %	c	p
	60°	
0	0	149.46
4.87	14.86	146.1
7.57	22.24	140.5
8.90	25.67	141.4
12.77	34.99	133.8
14.49	38.85	132.0
	70°	
0	0	233.79
3.10	9.65	231.7
4.88	14.79	226.0
6.63	19.61	223.2
14.67	38.95	209.3
19.45	48.71	196.2
24.81	58.45	183.7
	90°	
0	0	526.0
3.28	10.11	512.3
4.38	13.22	508.0
13.19	35.25	470.0
14.65	38.44	459.73
24.39	56.89	410.18

Perman and Lovett, 1926

%	p	%	p
	40.02°		
0	55.22	69.15	34.65
17.42	51.8	67.17	36.5
48.54	45.0		
	49.99°		
0	91.35	47.89	74.5
7.364	90.45	51.81	72.65
12.49	88.87	62.33	64.7
26.17	84.57	64.36	62.6
36.90	79.85	66.92	59.8
	60.28°		
0	151.42	45.82	123.8
7.148	149.1	53.19	118.0
12.93	146.8	58.03	111.7
18.70	144.7	61.08	107.0
21.29	142.2	63.36	104.0
30.86	136,1	68.36	95.4
37.01	131.3	73.05	85.5
	70.39°		
0	237.8	35.39	209.0
9.063	234.65	41.58	200.0
9.90	233.4	49.67	190.1
14.17	231.8	50.27	189.4
14.83	230.1	53.86	183.1
24.30	222.4	56.57	176.6
27.79	217.5	65.44	157.3
31.89	213.1	74.67	132.2
	80.10°		
0	356.8	50.42	281.5
13.05	351.3	56.70	265.0
24.84	338.4	64.97	237.9
28.38	328.85	68.47	222.95
35.16	316.0	74.03	198.3
39.29	307.5	77.64	175.6
44.80	298.7	79.79	165.7
45.33	292.2	80.60	161.2
47.39	287.5		

Fricke, 1927

mol %	p	
	0°	10°
16.26	3.947	7.893
12.96	4.074	8.159
11.58	4.169	8.357
8.06	4.256	8.541
4.19	4.404	8.849
0	4.579	9.209

Fricke, 1929

mol %	p	
	0°	10°
16.06	3.481	7.910
6.39	4.328	8.663
4.05	4.423	8.870

Bovalini, 1930

%	p sat.t.	t
7.053	23.756	25
7.053	23.706	25
16.268	23.756	25
20.756	30.000	29
20.756	25.66	26
13.683	28.101	28

Edgar and Swan, 1922

t	p sat.t.	t	p sat.t.
19	13.37	25	18.39
20	14.15	26	19.34
21	14.93	27	20.46
22	15.73	28	21.61
23	16.56	29	22.75
24	17.44	30	23.93

Adams and Merz, 1929

t	p sat.t.	t	p sat.t.
10	7.48	30	23.09
15	10.24	40	37.66
20	14.05	50	57.77
25	18.06		

Sakai, 1940

t	p sat.t.	t	p sat.t.
18	12.106	30	23.338
20	13.576	35	29.98
22	15.136	40	38.05
24	16.978	45	47.61
26	18.840	50	58.96
28	21.036		

Beckmann, 1890

%	b.t.	%	b.t.
0	100	6.92	100.530
1.29	100.095	10.45	100.823
2.67	100.195	14.23	101.167
4.72	100.360		

Campetti, 1901

%	f.t.
45.94	9.85
49.10	14.92
54.16	19.92

Speyers, 1902

mol %	f.t.	mol %	f.t.
16.77	0.0	28.24	31.7
20.82	11.0	36.67	51.4
22.69	19.8	43.15	69.5

Jones, 1904 and Jones and Getman, 1904

M	f.t.	M	f.t.
0.5	-0.975	3.0	-5.767
1.0	-1.878	3.5	-6.555
1.5	-2.900	4.0	-7.625
2.0	-3.800	4.5	-8.975
2.5	-4.724		

Krummacher, 1905

f.t.	%
5.5	43.80
17.1	50.01
20.92	52.23

Frick and Kelly, 1925

%	f.t.	%	f.t.
40.1	0	67.2	50
45.7	10	67.4	50.6
51.2	20	71.1	60
57.6	30	74.7	68.5
62.3	39.7	75.9	70

Shnidman and Sunier, 1932

mol %	f.t.	mol %	f.t.
23.87	18.72	35.10	43.85
25.13	21.59	36.18	46.56
26.02	23.85	40.41	54.77
27.12	26.834	40.65	54.97
27.49	27.31	41.30	55.88
28.88	30.38	41.63	57.02
30.99	35.42	42.94	59.13
31.02	35.15	44.28	61.76
31.82	37.36	45.61	63.79
33.77	41.11	49.56	70.49
34.98	43.94	50.93	73.11

Miller and Dittmar, 1934

mol %	f.t.	mol %	f.t.
100.00	132.6	81.90	115.3
95.91	128.8	77.02	109.9
94.50	127.3	72.17	104.4
90.04	123.2	63.43	93.8
88.94	121.9	56.80	84.4
85.78	118.7	50.95	75.3
84.56	118.3	47.41	68.5

Vetrov, 1937

mol %	f.t.	E
0	0	-
0.9	- 0.7	-
1.8	- 1.7	-
2.9	- 2.9	-
3.9	- 3.8	-
5.0	- 4.9	-
6.2	- 6.0	-
7.3	- 7.1	-
8.7	- 8.3	-
10.0	- 9.9	-11.5
11.6	-11.1	-11.5
12.5	-11.5	-11.5
13	-10.3	-11.5
14.3	- 7.1	-11.5
16	- 2.7	-
17.7	+ 1.5	-
19.6	+ 7.9	-
21.2	+12.5	-
23.7	+18.5	-
26.0	+24.5	-
28.2	+29.7	-
30.9	+35.2	-
36.6	+48.1	-
40	+52.8	-
45	+62.8	-
50	+71.5	-
52	+76.8	-
60	+87.5	-
65	+95	-
68	+100	-
100	+132.6	-

Chadwell and Politi, 1938

N	f.t.	N	f.t.
0.3241	-0.5953	4.5453	-7.1506
0.4315	-0.7893	5.2848	-8.0825
0.6458	-1.1698	6.0126	-8.9659
1.5213	-2.6732	8.0828	-11.4142 E
3.3601	-5.4897	8.0833	-11.4146 E
3.3696	-5.5944		

Polosin and Ozolin, 1947

%	f.t.	%	f.t.
0	+ 0.05	36.0	- 5.70
4.0	- 1.05	38.0	- 2.60
8.0	- 2.20	40.0	+ 0.15
12.0	- 3.47	44.0	+ 6.63
16.0	- 4.78	48.0	+13.40
20.0	- 6.00	52.0	+20.33
24.0	- 7.25	54.0	+23.90
28.0	- 9.0	56.0	+27.51
32.0	-10.57	60.0	+35.36
34.0	- 9.0	62.0	+39.83

Rollet and Cohen-Adad, 1948

E : -11.6° 32.6 %

Cohen-Adad, 1949

%	f.t.	%	f.t.
12.50	- 3.98	33.20	-10.83
25.00	- 8.53	33.50	-10.30
30.00	-10.54	34.00	- 9.93
31.50	-11.21	39.35	- 1.52
32.20	-11.45	44.02	+ 6.80
32.50	-11.54	47.00	+11.80
32.60	-11.60 E	53.20	+23.00
32.70	-11.54	100	131

Polosin and Treshchov, 1953

%	f.t.	%	f.t.
0	0	40	- 1
20	- 6	50	+19
32.9	-11 E	60	+36

Properties of phases

Traube, 1885

c	%	d
	15°	
10	9.09	1.0276
20	16.67	.0533

Campetti, 1901

t	d^t	%
9.85	1.132	45.94
14.92	1.141	49.10
19.92	1.151	54.16

Speyers, 1902

mol %	t	d sat.sol.
16.77	0.0	1.121
20.82	19.0	.142
22.69	32.2	.152
28.24	46.3	.159
36.67	64.5	.159
43.15	84.1	.171

Rüdorf, 1903

N	d	N	d
		25°	
7.5	1.111	0.469	1.004
3.75	1.054	0.234	1.000
1.875	1.027	0.117	0.998
0.937	1.011	0.058	0.9971

Jones, 1904 and Jones and Getman, 1904

M	d	M	d
		0°	
0	0.999868	2.5	1.035732
0.5	1.005636	3.0	.044340
1.0	.013032	3.5	.051968
1.5	.019992	4.0	.059140
2.0	.028824	4.5	.065824

Zoppellari, 1905

t	%	d
20.2	7.5287	1.01875
19.8	15.4735	1.04092
19.7	34.4117	1.09447
20	43.6102	1.12133

Varga, 1911

%	d	%	d
	18°		
0.5196	1.000003	14.0020	1.037070
0.7136	.000568	16.3345	.043642
1.0292	.001446	20.2082	.054340
2.2411	.004727	23.3361	.063310
3.4739	.008064	27.9716	.076608
5.1255	.012521	33.4566	.092354
6.6156	.016612	43.2590	.121511
8.3323	.021362	51.3270	.145337
10.3175	.026864	100	.321300

Burrows, 1919

%	d	%	d
	25°		
0	0.997073	14.4848	1.030884
2.6329	1.003912	33.0611	.064318
5.0484	.009800	53.8893	.093286
7.3010	.015198		
	30°		
2.3290	1.001575	15.4282	1.030922
9.0567	.017457		

Perman and Lovett, 1926

%	d	%	d
	40.02°		
17.42	1.037	67.17	1.181
48.54	.125	69.15	.185
	49.99°		
7.364	1.0005	51.81	1.129
12.49	.016	62.33	.160
26.17	.056	64.36	.166
36.90	.086	66.92	.173
47.89	.118		
	60.28°		
7.148	1.002	53.19	1.124
12.93	.016	58.03	.138
18.70	.029	61.08	.147
21.29	.036	63.36	.154
30.86	.060	68.36	.171
37.01	.078	73.05	.185
45.82	.104		
	70.39°		
9.063	1.000	41.58	1.083
9.90	.002	49.67	.107
14.17	.012	50.27	.108
14.83	.013	53.86	.118
24.30	.037	56.57	.128
27.79	.047	65.44	.154
31.89	.057	74.67	.181
35.39	.067		
	80.10°		
13.05	1.004	50.42	1.1065
24.84	.034	56.70	.1247
28.38	.0435	64.97	.147
35.16	.0615	68.47	.162
39.29	.0735	74.03	.1735
44.80	.0900	77.64	.1875
45.33	.0915	79.79	.193
47.39	.0975	80.60	.1935

Chadwell and Asnes, 1930

%	d	%	d
	9.98°		
1.676	1.0044	8.078	1.0226
4.116	1.0111	14.094	1.0399
4.162	1.0113	19.488	1.0556

t	d	t	d
	15 %		
5.04	1.0444	20.01	1.0396
9.98	1.0428	25.07	1.0376
15.04	1.0415		

Perman and Urry, 1930

%	c	d
	30°	
5.115	5.159	1.0090
10.02	10.23	.0223
17.83	18.61	.0434
24.91	26.48	.0630
30.13	32.48	.0776
35.16	38.39	.0920
39.36	43.45	.1054
44.48	49.77	.1192
50.11	56.93	.1359

Wyman Jr, 1933

%	d	%	d
	25°		
0	0.9971	29.64	1.0788
11.52	1.0284	36.83	.0994
20.31	.0524	42.47	.1159

Gucker, Gage and Moser, 1938

N	d	N	d
	30°		
0.08056	0.99694	0.82859	1.00867
0.15060	.99804	1.15522	.01364
0.19976	.99878	1.92868	.02551
0.39455	1.00187	2.95029	.04106
0.49616	.00344	4.39481	.06263
0.66822	.00613		
	25°		
0.00000	0.997074	3.33355	1.048835
0.11394	.998892	3.98193	.058612
0.15077	.999475	5.05362	.074560
0.35215	1.002682	5.92297	.087290
0.41500	.003675	7.28543	.106989
0.62386	.006983	8.20269	.120038
1.00812	.013038	9.52555	.138930
1.36866	.018668	9.52469	.138878
1.88532	.026703	9.53161	.138910
2.42107	.034939		

Venkatesan and Suryanarayana, 1956

N	d	N	d
	35°		
0.18330	0.99580	5.000	1.03394
0.45825	0.99884	10.000	1.07009
0.9165	1.00828	15.000	1.01423
1.833	1.00893	20.000	1.14129

Perman and Urry, 1930

c	d	π 0-100	π 100-150
	30°		
5.74	1.011	43.0	42.4
12.88	1.029	40.9	40.5
19.43	1.045	39.3	38.9
28.56	1.068	37.2	36.9
33.74	1.081	36.1	35.6
41.66	1.100	34.4	34.2
50.12	1.119	33.1	32.5
58.69	1.139	31.7	31.0
	40°		
5.72	1.007	42.4	42.1
12.82	1.024	40.8	40.4
19.33	1.040	35.4	30.9
28.43	1.063	37.6	37.1
33.55	1.075	36.6	36.0
41.43	1.094	35.0	34.7
49.89	1.114	33.6	33.2
58.42	1.134	32.4	31.6
67.78	1.155	30.9	30.2
	50°		
5.69	1.002	42.4	41.9
12.76	1.019	40.9	40.4
19.24	1.035	39.7	39.2
28.30	1.058	38.0	37.6
33.39	1.070	37.0	36.5
41.25	1.089	35.5	35.3
49.67	1.109	34.4	33.8
58.12	1.128	33.6	32.4
67.38	1.148	31.5	31.0
	60°		
5.67	0.998	42.7	42.2
12.70	1.014	41.3	40.7
19.17	1.030	40.1	39.6
28.14	1.052	38.5	38.0
33.24	1.065	37.6	37.1
41.02	1.083	36.3	36.0
49.41	1.103	35.1	34.6
57.81	1.122	33.6	33.2
67.88	1.143	32.2	31.9
	70°		
5.63	0.991	43.3	42.7
12.62	1.008	42.0	41.3
19.04	1.024	40.8	40.2
27.96	1.045	49.2	38.7
32.98	1.057	38.2	37.8
40.75	1.076	37.0	36.8
49.05	1.095	35.7 (1-60)	-
57.51	1.114	34.4	34.0
66.55	1.134	33.0	32.7
	80°		
5.59	0.985	44.1	43.6
12.55	1.003	42.8	42.3
18.94	1.018	41.6	41.2
27.79	1.039	39.9	39.7
32.83	1.052	39.2	38.8
48.82	1.090	36.6	36.2
57.14	1.109	35.2	35.1
66.25	1.129	34.0	33.5

Viscosity and surface tension

Rüdorf, 1903

N	η	N	η
	25°		
7.5	1146	0.234	892
3.75	960	0.117	889
1.875	919	0.058	891
0.937	904	0	895
0.469	897		

Öholm, 1913

N	diffusion ratio	N	diffusion ratio
	20°		
8	1.655	1	1.039
4	1.215	0.5	1.022
2	1.088	0.25	1.010

Taimni, 1929

c	η 50°	η 45°	η 40°	η 35°	η 30°	η 25°
120.0	1240	1327	1438	1574	1740	1938
128.0	-	1376	1490	1638	1810	2016
141.0	1328	1452	1587	1752	1946	2164
151.0	1389	1520	1665	1830	2026	2268

Chadwell and Asnes, 1930

t	η (H_2O=1)	t	η (H_2O=1)
	15 %		
5.04	1.0863	20.01	1.1183
9.98	1.0938	25.07	1.1264
15.04	1.1106		

%	η (H_2O=1)	%	η (H_2O=1)
	9.98°		
1.676	1.0045	8.078	1.0431
4.116	1.0160	14.094	1.0881
4.162	1.0180	19.488	1.1447

Wolkowa and Titow, 1931

c	η	c	η
	10°		
111.33	1972.3	106.46	1546.4
109.50	1770.9	103.69	1410.2

Ghosh and Gyani, 1953

c	η ($H_2O=1$)	c	η ($H_2O=1$)
		35°	
7.5	1.0511	22.5	1.2027
15.0	1.1232	30.0	1.2980

Venkatesan and Suryanarayana, 1956

N	η	N	η
		35°	
0.18330	732.6	5.000	812.8
0.45825	735.7	10.000	949.3
0.9165	751.5	15.000	1138.0
1.833	752.6	20.000	1454

Traube, 1885

c	%	σ
	15°	
10	9.09	73.347
20	16.67	73.437

Zemplen, 1906

t	σ	t	σ
0.033 %		11.59 %	
35.0	73.1267	35.1	77.9208
61.0	67.4545	61.8	71.8131
93.0	63.0549	93.1	67.9029
0.059 %		22.46 %	
34.9	73.6329	34.9	81.3759
61.3	67.6782	61.5	74.4422
93.1	63.1974	93.1	69.8109
0.59 %		0 %	
35.0	74.0547	35	70.29
61.1	68.2540	61	65.8
93.1	64.7974		
5.91 %			
35.0	75.1995		
61.8	69.7628		
93.1	66.3166		

Somogyi, 1916

%	t	a^2 (mg/mm)
20.699	15.50	7.477
16.251	16.0	7.428
6.090	15.4	7.357

mol %	a^2 (mg/mm)
	15.5°
0.50	7.360
0.250	7.375
0.125	7.378

Optical and electrical constants

Zoppellari, 1905

t	%	n_D
20.2	7.5287	1.34419
19.8	15.4735	1.35597
19.7	34.4117	1.38547
20	42.6102	1.39996

Venkatesan and Suryanarayana, 1956

N	n_D	N	n_D
		35°	
0.0009165	1.3323	0.45825	1.3345
0.0018330	1.3324	0.9165	1.3400
0.0045825	1.3333	1.833	1.3400
0.0091650	1.3323	5.000	1.3535
0.018330	1.3324	10.000	1.37375
0.045825	1.3325	15.000	1.39325
0.09165	1.3330	20.000	1.41400
0.18330	1.3300		

Harrington, 1916

%	ε	%	ε
		18.0°	
0.0	78.73	2.0	83.98
0.5	80.22	2.5	85.16
1.0	81.51	3.0	86.17
1.5	82.81		

Fürth, 1923

%	ε	%	ε
		20°	
0	80.5	16.6	87.5
0.99	80.3	23.1	88.6
1.96	80.2	28.6	88.8
2.91	82.2	33.3	90.5
3.84	83.1	37.5	90.9
4.76	85.0	44.8	91.0
9.1	85.7	100	3.5

Kniepkamp, 1928

%	ε
22°	
5	82.40
10	85.84
15	87.92

Wyman Jr, 1933

%	ε	%	ε
		25°	
0	78.54	29.64	91.76
11.52	83.90	36.83	94.43
20.31	87.95	42.47	96.58

Cohen-Adad, 1951

c	κ	c	κ
		25°	
2.5	0.0494	20.0	0.189
5.0	0.0735	30.0	0.244
10.0	0.131	40.0	0.355
12.5	0.152		

Venkatesan and Suryanarayana, 1956

N	κ	N	κ
		35°	
0.0009165	0.0176	0.45825	0.2366
0.0018330	0.0678	0.9165	0.3156
0.0045825	0.0566	1.833	0.5925
0.0091650	0.0366	5.000	1.2853
0.018330	0.0955	10.000	1.1183
0.045825	0.0766	15.000	1.0603
0.09165	0.1096	20.000	1.1813
0.18330	0.1594		

Thermal constants

Bennewitz and Kratz, 1936

%	U	%	U
		at room t.	
3.22	0.9798	10	0.9365
4.73	.9690	20	.8768
5.0	.9679	30	.8255
7.5	.9514	40	.7740

Gucker and Ayres, 1937

N	U		
	2°	5°	10°
0.00000	1.00000	1.00000	1.00000
0.09353	0.99543	0.99569	0.99590
0.16398	.99195	.99236	.99281
0.30232	.98551	.98019	.98706
0.50556	.97645	.97747	.97871
0.76971	.96532	.96653	.96848
1.0428	.95444	.95613	.95849
1.9689	.92214	.92460	.92803
2.2842	.91262	.91528	.91894
3.4826	.88016	.88334	.88766
4.1930	.85108	.85451	.85917
6.4168	.82147	.82498	.82994
8.0736	.79682	.80037	.80537
10.5223	-	.77062	.77562

N	U		
	20°	30°	40°
0.00000	1.00000	1.00000	1.00000
0.09353	0.99630	0.99654	0.99676
0.16398	.99353	-	-
0.30232	.98815	0.98887	0.98943
0.50556	.98046	.98162	.98247
0.76971	.97097	.97254	.97368
1.0428	.96160	.96362	-
1.9689	.93285	.93616	-
2.2842	.92414	.92774	0.93048
3.4826	.89404	.89849	-
4.1930	.86622	.87135	0.87536
6.4168	.83742	.84292	-
8.0736	.81311	.81895	-
10.5223	.78348	.78960	0.79467
13.5186	.75531	.76149	-
17.5767	-	.73255	0.73817

Perman and Lovett, 1926

mol % initial	mol % final	Q dil. by mole of added water
	40.02°	
34.93	34.11	974.7
33.24	32.78	141.1
31.76	31.32	119.3
30.46	29.70	117.4
28.71	27.57	104.4
13.95	13.16	49.65
10.18	9.55	30.77
7.57	7.16	21.23
29.38	28.37	113.4
27.61	25.85	102.3
22.82	21.26	83.52
19.14	18.02	72.54
17.44	16.40	66.94
10.71	10.12	38.81
7.02	5.73	19.77

mol %	Q dil	mol %	Q dil
	49.99°		
40.31	1951	27.02	94.5
39.65	1963	19.61	68.7
39.35	1687	14.09	45.7
39.24	273.3	11.07	33.8
38.05	160.8	8.13	27.0
36.06	139.2	6.65	22.5
33.96	122.3	5.18	13.9
30.36	104.0		
	60.28°		
45.00	1650	16.40	62.2
41.83	162.0	12.96	47.4
39.11	145.0	10.15	36.5
34.71	126.0	8.37	28.5
32.18	119.7	6.76	23.0
26.11	101.4		
	70.39°		
45.46	816.6	15.96	57.3
43.66	134.7	12.18	39.7
41.37	132.3	8.55	29.4
40.30	125.1	7.40	25.2
29.52	92.8	5.33	19.1
21.10	73.2		
	80.1°		
53.84	328.9	31.82	78.4
51,39	207.7	22.48	64.2
49.40	136.5	17.13	55.0
43.36	109.7	13.32	43.4
38.62	95.8	10.28	32.2
34.47	82.8	7.79	16.9

Water + Urea . Resorcinol ($C_7H_{10}N_2O_3$)

Cohen-Adad, 1949 (fig.)

%	f.t.	%	f.t.
8.50	- 1.78	51.00	+25.88
17.00	- 3.56	59.50	33.84
20.30	- 4.22 E	68.00	42.98
25.50	- 5.27 E metast.	76.50	53.80
25.50	+ 2.33	85.00	67.52
34.00	+11.24	93.50	85.46
42.50	+18.55	100	102

Water + Biuret ($C_2H_5N_3$)

Rollet and Cohen-Adad, 1951

%	f.t.	%	f.t.
0	0	60	108
10	58	63.5 (tr.t.)	112.5
20	76	70	125
30	65	80	145
40	96	90	165
50	102	100	185

Water + Thiourea (CH_4N_2S)

Jänecke and Hoffmann, 1932

p	t	p	t
	sat.sol.		
by heating			
755	115.5	282.5	80.2
730	114.0	199	72.2
716	112.8	138	63.8
661.5	109.0	75.5	50.0
544	101.0	51.5	41.3
485	97.0	39.5	36.0
425.5	93.0	24	25.0
342.5	86.3		
by cooling			
755	115.0	356	86.5
704.7	111.5	239.5	75.2
672	110.0	163	65.5
632	106.5	104.5	56.0
512	98.0	56	42.2
458	94.0	38.5	32.8
437	92.8	12.0	17.0
427.5	92.0	9.5	8.0
by cooling			
743	113.2	304	79.5
655	108.5	249	73.5
597	103.0	181	65.0
523	97.0	132	57.0
477	93.5	88	48.0
433	90.5	45.5	35.0
353	84.5	17.5	25.0

Jänecke and Hoffmann, 1932

%	b.t.	%	b.t.
25	101.7	70	112.2
50	106.2	75	116.0
62.5	109.4		

%	f.t.	%	f.t.
4.7	0.2	40.5	60.2
7.0	6.8	46.5	64.8
9.3	12.3	50.8	72.0
11.1	18.3	56.8	79.0
13.2	22.7	59.4	82.7
15.0	27.1	64.0	90.3
16.6	30.0	66.0	94.3
18.7	34.4	67.5	95.3
23.1	40.0	66.7	97.0
26.0	43.6	76.9	113.9
28.8	47.8	83.4	130.5
30.9	49.7	83.2	132.0
33.5	52.4	90.4	143.0
35.3	54.7	94.6	157.0
37.7	56.4	100.0	180.0
40.0	59.4		

Shnidman, 1933

%	mol%	f.t.
9.0	2.29	12.43
12.06	3.14	19.88
14.60	3.89	25.11
15.9	4.04	25.90
15.05	4.02	26.02
17.73	4.86	30.38
20.83	5.86	35.23
23.00	6.58	38.31
25.92	7.66	42.00
26.93	8.00	43.11
27.74	8.33	44.30
30.38	9.37	47.34
35.27	11.43	53.02
39.05	13.17	57.05
44.53	15.98	62.85
48.61	18.29	67.43
50.21	19.25	69.26
55.78	22.99	75.96
59.87	26.10	81.28

Water + Urethane ($C_3H_7O_2N$)

Speyers, 1902

mol %	f.t.	mol %	f.t.
3.61	0.0	43.70	23.5
6.09	10.3	68.91	31.4
6.62	11.1	75.58	37.0

Chadwell and Politi, 1938

N	f.t.	N	f.t.
0.2568	-0.4642	1.0377	-1.7176
0.3223	-0.5772	1.1320	-1.8122
0.3840	-0.6863	1.1633	-1.8968
0.4482	-0.7910	1.1935	-1.9444
0.4766	-0.8426	1.7609	-2.6887
0.6895	-1.1885	1.7629	-2.6888

Speyers, 1902

t	d
sat. sol.	
0.0	1.023
11.0	1.034
24.0	1.070
38.8	1.056
39.7	1.057

Richards and Palitzsch, 1919

%	d	%	d
	20°		
0	0.99823	38.13	1.04125
2.22	1.00105	44.51	.0470
9.12	.0096	47.15	.04950
16.69	.0188	50.07	.0517
17.27	.01945	55.65	.0559
27.12	.03050	56.01	.05620
28.62	.0320		

%	π	%	π
	20°		
0	43.25	38.13	39.32
2.22	42.49	47.15	40.00
17.27	39.17	56.01	40.86
27.12	38.93		

Palitzsch, 1928

mol %	d	mol %	d
	25°		
0.0056	0.99710	2.8062	1.02010
0.0112	.99719	4.4898	.02884
0.0561	.99768	6.7348	.03712
0.0786	.99784	11.225	.04788
0.1123	.99819	22.449	.06067
0.2245	.99983	33.674	.06048
0.5612	1.00266	44.898	.06976
1.1225	.00775	53.09	.07077
2.000	.01469		

Chadwell and Asnes, 1930

%	d	%	d
	9.98°		
2.213	1.0027	13.986	1.0187
6.553	1.0086	25.643	1.0331
8.812	1.0117		

%	d 20°	d 25°
0	0.9982	0.9971
5.270	1.0049	1.0033
10.812	1.0115	1.0097
14.869	1.0164	1.0143
20.549	1.0229	1.0205
24.599	1.0273	1.0247
28.815	1.0316	1.0290
41.464	1.0437	1.0403

Richards and Palitzsch, 1919

%	η	%	η
	20°		
0	1005	44.51	2261
9.12	1212	50.07	2483
16.69	1405	55.65	2730
28.62	1739		

Chadwell and Asnes, 1930

%	η (water=1000)	%	η (water=1000)
	9.98°		
2.213	1049.5	13.986	1383.7
6.553	1161.4	25.643	1710.5
8.812	1217.5		

c	η 20°	η 25°
0	1005.0	893.5
5.270	1121.6	991.9
10.812	1253.0	1102.5
14.869	1356.3	1191.4
20.549	1504.9	1313.6
24.599	1618.2	1408.7
28.815	1743.1	1512.6
41.464	2156.5	1860.5

Richards and Palitzsch, 1919

%	σ	%	σ
	20°		
0	72.6	38.13	39.4
2.22	59.0	47.15	39.1
17.27	44.7	56.01	38.6
27.12	41.1		

Palitzsch, 1928

mol %	σ	mol %	σ
	25°		
0.0056	71.75	1.1225	50.21
0.0112	71.40	2.000	45.40
0.0561	69.42	2.8062	43.04
0.0786	68.60	4.4898	40.81
0.0786	68.52	6.7348	39.66
0.1123	67.32	11.225	38.80
0.2245	63.54	22.449	37.96
0.5612	56.45	33.674	37.49
1.1225	50.15	44.898	37.15
1.1225	50.24	53.09	37.04

Water + Malonamide ($C_3H_6O_2N_2$)

Meldrum and Turner, 1908

c*	b.t	c*	b.t.
13.40	100.765	10.56	100.535
12.06	100.645	9.13	100.455
11.45	100.595		

* gr in 100 cc water .

Water + Succinimide ($C_4H_5O_2N$)

Speyers, 1902

mol %	f.t.	mol %	f.t.
1.58	0.0	9.91	33.3
2.74	11.3	27.14	69.3
4.23	20.7		

t	d	t	d
	sat.sol.		
0.0	1.025	50.3	1.126
15.9	1.042	65.0	1.158
36.6	1.104	84.4	1.171

Water + Benzamide (C_7H_7NO)

Meldrum and Turner, 1908

c*	b.t.	c*	b.t.
13.27	100.380	10.05	100.295
11.23	100.335	8.43	100.265

c* : gr. in 100 cc water .

Water + Acetanilide (C_8H_9ON)

Schoorl and Weerd, 1922

%	f.t.	%	f.t.
0.50	15	89.8	84
0.54	25	93.7	88
0.63	30	97.0	99
0.86	40	98.7	104
1.25	50	100	114

%	sat.t.	%	sat.t.
5.0	80	60	142
5.4	86	75	127.5
5.8	90	80	118
6.1	95	80.5	96
6.6	97.5	81.9	91.5
20	134	83.4	88
30	142	84.4	87
40	144	87	83.2
50	143.5		

Water + Methylacetanilide ($C_9H_{11}NO$)

Meldrum and Turner, 1910

%	b.t.
12.88	100.162
11.17	100.137
14.78	100.141
7.883	100.093

Kerler, 1894

molar conductivity	M
40.234	2.8377
61.62	0.9459
79.58	0.3153
90.596	0.1051
99.178	0.03503

Water + o-Monoacetylphenylenediamine ($C_8H_{10}ON_2$)

Sidgwick and Neill, 1923

%	f.t.	%	f.t.
3.40	7.2	64.10	69.9
12.05	22.0	71.72	78.2
22.32	33.5	79.22	88.1
31.95	42.1	85.80	99.0
41.64	50.4	93.23	115.4
51.73	59.1	100.0	144.8

Water + m-Monoacetylphenylenediamine ($C_8H_{10}ON_2$)

Sidgwick and Neill, 1923

%	f.t.	%	f.t.
9.05	48.7	71.10	167.0
18.12	82.9	79.34	181.9
28.20	110.1	86.73	204.4
44.13	132.9	94.15	235.8
53.34	144.2	100.0	279.0
63.56	156.3		

Water + p-Monoacetylphenylenediamine ($C_8H_{10}ON_2$)

Sidgwick and Neill, 1923

%	f.t.	%	f.t.
6.50	56.8	60.15	103.2
18.63	86.3	69.35	107.1
27.63	92.1	79.50	112.6
34.27	93.7	81.74	119.2
42.82	96.5	94.13	144.0
49.10	98.6	100.0	160.5

Water + Caffeine ($C_8H_{10}O_2N_4$)

Kremann and Janetzky, 1923

%	f.t.	%	f.t.
0.0	0.0	9.6	40.5
0.5	- 0.2	15.0	49.5
1.9	- 0.30	20.0	54.5
2.1	- 0.40	25.0	58.5
3.1	- 0.40	30.4	61.0
4.5	+13.0	35.5	67.2
5.4	-	40.0	73.0
7.2	32.5	45.6	81.5
E : - 0.4°		59.0	100.0

Water + Thiazole (C_3H_3NS)

Metzger and Disteldorf, 1953

mol % L	mol % V	p
	90°	
100	100	320
98.5	92.4	340
90.0	64.4	450
82.0	50.6	530
65.0	35.6	645
50.0	30.3	684
38.0	28.5	693
28.0	28.4	695.5
24.0	28.4	694.5
10.0	27.7	689.5
5.0	23.9	658
2.0	14.0	601
0.0	0.0	526

mol % L	mol % V	t
	750 mm	
100.0	100.0	111.5
88.0	58.8	103.6
78.0	45.2	98.1
68.5	37.6	95.1
57.0	32.0	93.1
54.0	31.0	92.8
46.5	29.3	92.3
33.5	27.9	92.15
27.5	28.0	92.10
14.0	28.3	92.10
10.0	27.7	92.25
7.0	25.6	92.8
4.5	21.8	93.8
2.0	13.9	96.0
1.2	9.9	97.1
0.0	0.0	99.6

Metzger and Disteldorf, 1953 (fig.)

mol %	n_D	mol %	n_D
	25°		
0	1.3390	60	1.5120
20	1.4400	80	1.5300
40	1.4850	100	1.5380

Water + Antipyrine ($C_{11}H_{12}N_2O$)

Kremann and Janetzky, 1923

%	f.t.	%	f.t.
100.0	+109.0	52.6	+15.5
96.1	95.0	47.8	+11.0
94.7	88.0	45.5	+ 7.0
88.5	70.0	43.6	+ 6.1
83.0	56.0	41.2	+ 2.5
78.1	46.5	39.1	0.0
72.5	38.0	35.4	- 2.8
67.0	30.4	26.2	- 1.7
61.9	24.9	16.7	- 0.9
57.3	20.2	0.0	0.0
54.8	18.0	E : -3.3°	

Kaplan and Rabinovitch, 1948

%	f.t.	%	f.t.
44.9	14.5	63.5	35.5
49.9	20.5	69.0	41.5
54.0	24.5	77.0	55.0
59.0	30.0	86.0	72.0

Krupatkin, 1956

%	f.t.	%	f.t.
100.00	113.0	50.00	81.0
90.00	98.0	40.00	80.5
80.00	88.5	30.00	79.0
70.00	83.0	20.00	69.0
60.00	82.0		

Water + Pyramidon ($C_{13}H_{17}N_3O$)

Charonnat, 1927

%	sat.sol. lower	sat.sol. higher
9.38	123	123
10	129	104
15	165	81
20	175	77.5
27	-	70.5
40	-	70
45	190	- C.S.T.
50	188	69.5
66.6	175	74.4
75	152	84
77.7	138	92

Charonnat, 1927

%	f.t.	%	f.t.
6.57	0	40	70
5.3	20	50	70
5.3	37	60	70
7.9	55	75	74
13.04	65	94	90
20	68	100	108
30	69		

Kaplan and Rabinovitch, 1948

%	f.t.	%		f.t.
1.0	- 0.1	20.0		+72.0
1.9	0.0	21.0		72.5
2.7	+ 1.0	68.6	L_1+L_2	73.0
3.9	4.0	69.1		73.5
4.5	8.5	72.2		75.0
5.2	53.5	75.4		76.5
7.2	59.0	78.0		78.0
8.2	61.5	85.0		83.0
10.5	64.5	88.2		90.0
14.0	68.5	91.0		97.0
18.0	71.0	93.5		104.5

Krupatkin, 1956

sat.t.	% L_1	% L_2
169	40	40
167.5	50	-
167	-	30
165	60	-
160	70	-
158	-	20
145	75	-
143	-	15
130	-	10
106	-	10
84	75	-
83	-	15
75.5	-	20
74	70	-
71	-	30
69.0	60	-
68.0	50	40
68.0	45	45

%	f.t.	%	f.t.
100	108	50	70.5
95	86	40	70.5
90	78	30	70.0
80	72	20	69.5
70	71	10	62.0
60	70.5	5	15.0

Water + Salicin ($C_{13}H_{18}O_7$)

Tammann, 1915

%	p	%	p
	100°		
9.82	755.1	33.54	743.0
19.62	750.5	39.68	739.7
27.59	746.7	50.96	731.4

Water + Saccharin ($C_7H_5O_3NS$)

Fürth, 1923

%	ε	%	ε
	20°		
0.0	80.5	1.5	74.8
0.05	84	2	72.5
0.10	84	5	66
0.25	84.5	10	57.5
0.50	86.2	20	47.5
0.75	81.0	30	38.5
1	77.2		

Water + Saccharinic acid lactone ($C_6H_{10}O_5$)*

Rimbach and Heiten, 1908

%	d	%	d
	20°		
0	0.9982	10.08	1.0310
1.47	1.0042	12.16	1.0376
2.77	1.0078	16.055	1.0506
5.303	1.0164		

*The authors call it " saccharin " .

Rimbach and Heiten, 1908

%	(α) 6655 Å	(α) 5893 Å	(α) 5330 Å	(α) 4885 Å	(α) 4482 Å
1.47	74.86	93.82	123.63	148.36	180.87
2.77	72.36	93.31	119.40	146.68	179.10
5.303	71.05	93.32	119.32	145.82	177.68
10.08	70.95	93.24	119.16	145.80	176.30
12.16	70.68	93.21	119.30	145.04	175.60
16.055	70.89	93.13	119.22	144.84	175.00

Water + Cytisine ($C_{11}H_{14}N_2O$)

Rauwerda, 1900

%	f.t.
43.85r	16
55.22	30

c	d	c	d
	17°		
2	1.0028	30	1.0680
5	.0099	50	.1151
15	.0327	60	.1405
25	.0571		

c	$(\alpha)_D$	c	$(\alpha)_D$
	17°		
2	119.10	30	125.23
5	123.20	50	111.22
15	127.40	60	101.46
25	127.4		

Water + Methylcytisine ($C_{12}H_{16}N_2O$)

Rauwerda, 1900

%	f.t.
46.51	19
53.19	30

c	d	c	d
	17°		
2	1.0011	30	1.0547
5	.0053	40	.0721
10	.0175	50	.0883
20	.0342		

c	$(\alpha)_D$	c	$(\alpha)_D$
2	224.45	30	238.30
5	230.00	40	231.16
10	234.10	50	219.40
20	238.20		

Water + Nitrosopiperidine ($C_5H_{10}ON_2$)

Flaschner, 1909

%	sat.t. higher	sat.t. lower
94.6	31.5	-
85.9	103.5	-
75.6	133.4	-
67.0	143.5	-
58.9	147.7	-
51.9	149.3	-
43.3	150.3	-
38.5	150.3	-
30.1	148.0	-
22.7	141.5	-
15.2	124.0	-
8.1	73.5	14.5

Water + Albumine

Rakusin and Flieher, 1923

%	d	%	d
	17°		
0.5	1.00143	8	1.02150
1	.00283	9	.02410
1.5	.00432	10	.02666
2	.00562	11	.02923
3	.00835	12	.03176
4	.01085	13	.03432
5	.01341	14	.03689
6	.01634	15	.03942
7	.01884	15.35	.04028

Jacobson, 1951

c	d
20°	
0	0.9982
4.72	1.0111
7.04	.0177
10.7	.0273
16.3	.0416
23.9	.0619
36.3	.0997

c	π
20°	
36.3	35.45
23.9	38.86
16.3	40.90
10.7	42.43
7.04	43.40
4.72	44.08
0	45.40

Jacobson, 1951

c	sound velocity (m/sec.)
20°	
36.3	1601.7
23.9	1556.8
16.3	1532.1
10.7	1514.7
7.04	1504.6
4.72	1497.9

Water + Bovine serum albumine

Barker and Tkaczyk, 1954

%	η_{5780}	%	η_{5780}
	20°		
0	1.334	30	1.388
10	1.350	40	1.406
20	1.370	50	1.424

Water + Gelatine

Fürth, 1923

%	ε	%	ε
	20°		
0	80.5	13.0	58.0
1.9	74.0	16.6	53.0
4.8	67.5	16.6	51.5
5.8	66.0	30.0	48.0
6.7	66.0	50.0	44.0
9.1	61.5	100.0	5.6
9.1	65.0		

Water + Nitromethane (CH_3NO_2)

Fowler and Hunt, 1941

% L	% V	% L	% V
	at b.t.		
11.0	66.4	50.5	78.3
12.1	67.9	55.3	80.1
12.7	70.6	65.9	78.2
14.8	74.7	80.1	78.2
21.0	75.3	91.9	81.0

Az : 78.2 % 83.7°

Schumacher and Hunt, 1942

% L	% V	% L	% V
		at b.t.	
97.5	87.0	43.4	76.7
94.6	80.3	31.5	76.5
91.8	78.0	24.7	76.3
88.5	77.2	22.0	76.0
84.0	76.4	18.8	74.8
80.1	76.4	15.0	72.8
72.1	76.4	12.7	71.2
65.4	76.4	8.3	63.9
55.8	76.5	7.4	60.8
50.3	76.5	4.6	47.5

Az : 76.4 % 83.6°

Timmermans, 1907

C.S.T. = 103° 65 %

Timmermans and Kohnstamm, 1909 - 1910

C.S.T. = 103.3° dt/dp (1-150 kg/cm²) = -0.008

Lecat, 1949

%	b.t.
-	82 Az
76.4	83.6 Az
100	101.25

Schumacher and Hunt, 1942

%	n_D	%	n_D
	20°		
99.28	1.3813	12.13	1.3400 (L_1)
99.21	.3811	11.15	.3400 "
98.22	.3805	10.07	.3395
97.97	.3802	9.07	.3390
96.96	.3800 (L_1)	8.02	.3385
96.03	.3800 "	7.02	.3380
95.00	.3800 "	5.93	.3371
12.84	.3400 "		

Water + Nitrobenzene ($C_6H_5NO_2$)

Campetti and Delgrosso, 1910

%	sat.t.	%	sat.t.
96.91	150	29.68	232
90.22	185	13.86	217
84.64	215	5.03	178
79.09	225	0.80	97
66.88	234	0.57	60

Water + o-Nitrotoluene ($C_7H_7NO_2$)

Campetti and Delgrosso, 1910

%	sat.t.	%	sat.t.
97.79	138	43.26	245
91.90	197	29.93	242
85.36	222	20.77	238
82.05	231	13.33	230
77.21	237	5.97	205
69.21	243	2.17	164

Water + Nitrites and Nitrates

Lecat, 1949

2nd Comp.			Az	
Name	Formula	b.t.	%	b.t.
Butylnitrite	$C_4H_9O_2N$	78.2	93	70.0
Isobutylnitrite	$C_4H_9O_2N$	67.1	92	63.2
Isoamylnitrite	$C_5H_{11}O_2N$	97.15	85	80.6
Methylnitrate	CH_3O_3N	64.8	84	61.5
Ethylnitrate	$C_2H_5O_3N$	87.68	78	74.35
Propylnitrate	$C_3H_7O_3N$	110.5	75	84.8
Isobutylnitrate	$C_4H_9O_3N$	123.5	72	88.5
Isoamylnitrate	$C_5H_{11}O_3N$	149.75	60	95.0

Water + o-Nitraniline ($C_6H_6O_2N_2$)

Sidgwick and Rubie, 1921

%	f.t.	%	f.t.
100	69.7	66.89	205.2
99.43	68.0	52.30	210.3
98.29	66.0	35.71	208.6
97.23	68.0 L_1+L_2	17.50	194.2
96.16	91.0	10.74	178.5
92.05	142.0	7.19	164.5
89.50	160.2	2.95	128.4
81.88	188.5		

C.S.T. = 211.0°

E = 63.0° 97.5 %

Water + m-Nitraniline ($C_6H_6O_2N_2$)

Sidgwick and Rubie, 1921

%	f.t.	%	f.t.
100	114.6	57.55	185.8
99.86	113.5	50.57	186.1
94.96	103.2	36.94	185.2
90.02	125.6 L_1+L_2	25.39	180.5
83.60	159.9	13.08	164.2
79.82	169.3	6.04	136.5
75.77	176.7	1.70	83.4

C.S.T. = 187.5°

E = 99.0° 93.5 %

Water + p-Nitraniline ($C_6H_6O_2N_2$)

Sidgwick and Rubie, 1922

%	f.t.	%	f.t.
100	147.0	62.58	170.4
98.96	144.8	51.07	172.0
96.38	136.8	39.49	172.0
93.86	128.0	28.82	169.5
92.52	124.2	9.29	141.5
86.82	129.2	5.16	123.5
81.27	148.6 L_1+L_2	2.79	97.0
68.19	167.8		

C.S.T. = 172.5°

E = 115.5° 90.%

Water + o-Nitracetanilide ($C_8H_8O_3N_2$)

Sidgwick and Rubie, 1921

%	f.t.	%	f.t.
100	93.4	65.04	195.0
99.38	92.4	41.16	197.0
97.11	83.2	24.06	191.2
94.54	99.0 L_1+L_2	11.97	179.2
93.65	110.2	8.04	157.6
83.47	173.1	3.97	120.0
76.28	188.0		

C.S.T. = 198.0°

E = 81.0° 96 %

Water + m-Nitracetanilide ($C_8H_8O_3N_2$)

Sidgwick and Rubie, 1921

%	f.t.	%	f.t.
100	154.5	66.08	175.7
93.57	129.2	31.13	176.9
91.72	124.2	14.52	163.5
81.18	149.2 L_1+L_2	5.21	130.0
73.74	166.4		

C.S.T. = 180.0°

E = 118.5° 90 %

Water + p-Nitracetanilide ($C_8H_8O_3N_2$)

Sidgwick and Rubie, 1921

%	f.t.	%	f.t.
100	215.9	42.65	177.4
95.20	192.2	25.62	172.8
81.84	163.6	14.36	164.2
65.84	171.7 L_1+L_2	7.08	156.5
54.93	176.6	2.94	149.1

C.S.T. = 178.0°

E = 161.5° 80 %

Water + o-Nitrobenzaldehyde ($C_7H_5O_3N$)

Sidgwick and Dash, 1922

%	sat.t.	%	sat.t.
0.70	66.9	94.80	145.1
1.53	103.1	96.49	113.5
4.75	166.0	99.00	63.8
93.56	161.7		

E = 39.7° 99.9 %

Water + m-Nitrobenzaldehyde ($C_7H_5O_3N$)

Sidgwick and Dash,

%	sat.t.	%	sat.t.
0.39	40.5	39.62	211.8
0.96	75.1	56.23	211.7
1.95	111.9	78.77	195.3
3.01	136.4	86.75	179.3
3.95	147.1	90.18	167.0
4.92	157.3	92.87	152.0
10.51	181.0	95.67	126.2
14.03	191.4	97.83	85.2
23.35	205.4	100	58.0

C.S.T. = 212°

E = 51.0° 99.6 %

Water + p-Nitrobenzaldehyde ($C_7H_5O_3N$)

Sidgwick and Dash,

%	sat.t.	%	sat.t.
0.97	90.2	63.19	213.4
2.91	132.4	90.65	172.6
8.78	176.5	92.74	164.6
20.67	205.4	96.70	134.2
37.77	215.5	100	106.5
51.92	215.7		

E = 97.1° 98.2 %

C.S.T. = 216°

Water + p-Chloraniline (C_6H_6NCl)

Sidgwick and Rubie, 1921

%	f.t.	%	f.t.
100	70.5	4.62	160
99.11	69.0	3.26	136
98.41	67.0	2.20	111
96.75	88 L_1+L_2	1.04	55
96.27	100	0.525	42
94.28	145		

E = 97.5 % 65°

Water + o-Chloraniline (C_6H_6NCl)

Sidgwick and Rubie, 1921

%	sat.t.	%	sat.t.
100	- 2.1	3.35	158
99.44	+19.0	2.19	130
98.50	75	1.25	95
97.58	115	1.04	80
96.02	155	0.916	71

E : -7.0° 99.8 %

Water + m-Chloraniline (C_6H_6NCl)

Sidgwick and Rubie, 1921

%	sat.t.	%	sat.t.
100	-10.4	2.23	150
99.51	- 6.0	1.47	125
98.85	+36	0.91	100
97.90	88	0.574	75
90.50	130		

E : -15° 99.5 %

Water + o-Chloracetanilide (C_8H_8ONCl)

Sidgwick and Rubie, 1921

%	f.t.	%	f.t.
100	86.7	10.71	182
98.9	82.0	6.63	155
97.43	77	5.13	112
94.95	73	2.94	105
92.87	105 L_1+L_2	1.69	85
88.72	150	0.692	65
85.12	175	0.323	15

E : 70.0° 95 %

Water + m-Chloracetanilide (C_8H_8ONCl)

Sidgwick and Rubie, 1921

%	f.t.	%	f.t.
100	76.6	6.14	176
98.00	69	2.76	138
96.82	64	2.49	130
94.41	81 L_1+L_2	0.743	76
91.29	123	E : 59 5°	95 %
86.86	165		

Water + p-Chloracetanilide (C_8H_8ONCl)

Sidgwick and Rubie, 1921

%	f.t.	%	f.t.
100	178.4	3.85	169
97.38	168	1.87	140
93.16	150	0.837	115
89.60	142	0.452	102
88.08	160 L_1+L_2	0.384	97
85.23	178	0.095	65.5
E : 138.0°	90 %		

Water + Methylpelletierine ($C_{15}H_{17}NO$)

Tanret, 1920

c	sat.t.	c	sat.t.
1000	58	16.5	42.5
500	43	12.5	47
335	40	10	53
250	37.5	8.5	58
200	36.5	7	63
100	35.5	6.5	68
50	35.5 C.S.T.	5.5	74
25	38	5	80

Water + dl-Methionine ($C_5H_{11}NS$)

Dalton and Schmidt, 1935

%	f.t.	%	f.t.
1.79	0	5.13	45
2.02	5	5.72	50
2.28	10	6.38	55
2.57	15	7.07	60
2.91	20	7.84	65
3.27	25	8.64	70
3.67	30	9.51	75
4.12	35	14.97	100
4.59	40		

Water + Ammonium formate (CH_5O_2N)

Groschuff, 1903

%	f.t.	%	f.t.
50.0	- 1	66.7	+39
55.6	+12.5	76.9	+63.5
58.9	+20	100.0	116
62.5	+29		

Perkin, 1891

mol %	d 15°	d 25°
25	1.1265	1.1223
10.22	.0723	.0687
9.09	.0665	.0631
0	0.9991	0.9971

Saslawsky and Standel, 1930

%	d	%	d
	15°		
6.2816	1.0163	37.101	1.0920
12.517	.0327	43.186	.1051
18.712	.0487	49.256	.1174
24.813	.0638	53.782	.1262
31.004	.0783		

Perkin, 1891

mol %	(α) magn.	t
25	1.1034	17.4
10.22	.0644	18.6
9.09	.0539	16.4

Water + Ammonium acid formate ($C_2H_7O_4$)

Groschuff, 1903

%	f.t.	%	f.t.
46.7	- 6.5	49.6	- 7
49.6	+ 1.5	53.0	+13
50.4	+ 4	55.8	+29
51.3	+ 6	57.8	+39
52.1	+ 8.5		

Water + Ammonium acetate ($C_2H_7O_2N$)

Hager, 1876

%	d	%	d	%	d
		16°			
0	0.999	19	1.039	36	1.0699
3	1.007	20	.041	37	.0714
4	.009	21	.043	38	.0729
5	.011	22	.045	39	.0744
6	.013	23	.047	40	.0759
7	.015	24	.049	41	.0774
8	.017	25	.051	42	.0789
9	.019	26	.053	43	.0804
10	.021	27	.055	44	.0819
11	.023	28	.057	45	.0834
12	.025	29	.059	46	.0849
13	.027	30	.061	47	.0864
14	.029	31	.0625	48	.0879
15	.031	32	.0640	49	.0894
16	.033	33	.0655	50	.0909
17	.035	34	.0670	51	.0924
18	.037	35	.0684	52	.0939

Perkin, 1891

mol %	d 15°	d 25°
18.39	1.0832	1.0792
7.7	.0480	.0449

Heydweiller, 1912

mol %	d	mol %	d
		18°	
0	0.99862	2.050	1.03044
0.509	1.00717	4.105	1.05688
1.020	1.01527		

de Garcia, 1920

N	d	N	d
	19.5°		
4	1.052340	0.25	1.003551
2	.027561	0.125	.001510
1	.014200	0.062	.000653
0.5	.007012		

Guillaume, 1946

%	d
20°	
9.35	1.0209
35.0	.0693

Rubien, 1911

N	n_D	N	n_D
	18°		
0.509	1.33893	2.050	1.35521
1.020	1.34445	4.105	1.37537

Heydweiller, 1913

N	n_D	N	n_D
		18°	
0.5	1.33883	2.0	1.35470
1.0	.34423	4.0	1.37435

de Garcia, 1920

N	n_D	N	n_D
	19.5°		
4	1.3670	0.25	1.3354
2	.3504	0.125	.3343
1	.3416	0.062	.3338
0.5	.3376		

Guillaume, 1946

%	n_{5780}
20°	
9.35	1.3478
35.0	.3854

Perkin, 1891

mol %	(α)magn.	t
18.39	1.0800	16.6
7.7	.0468	16.6

Guillaume, 1946

%	* $(\alpha)^{5780}_{magn.}$
20°	
9.35	3.986
35.0	3.980

* in radians, gauss and cm.

Heydweiller, 1912

mol %	κ	mol %	κ
18°			
0.509	305.9	2.050	868.8
1.020.	555.4	4.105	1055

Water + Ammonium propionate ($C_3H_9NO_2$)

Perkin, 1891

%	d 15°	d 25°
63.87	1.0746	1.0694
32.95	1.0526	1.0485
0	0.9991	0.9971

Perkin, 1891

%	(α) magn.	t
63.87	1.1018	18.0
32.95	1.0672	19.2

Water + Ammonium valerianate ($C_5H_{13}O_2N$)

de Garcia, 1920

N	d	N	d
20°			
4	1.026314	0.25	1.001500
2	.014125	0.125	.000600
1	.007118	0.062	.000218
0.5	.003568		

de Garcia, 1920

N	n_D	N	n_D
20°			
4	1.3751	0.25	1.3361
2	.3545	0.125	.3345
1	.3440	0.062	.3340
0.5	.3386		

Water + Ammonium carbonate ($CH_8O_3N_2$)

Lunge, 1883

%	d	%	d
15°			
44.90	1.1414	19.83	1.0672
42.65	.1362	17.88	.0606
40.23	.1297	15.95	.0543
38.06	.1230	14.75	.0497
35.85	.1174	12.50	.0427
33.95	.1115	9.96	.0337
31.74	.1049	8.20	.0274
29.74	.0995	6.58	.0219
27.93	.0937	4.75	.0155
25.71	.0863	2.36	.0071
23.62	.0795	0	0.9991
21.58	.0728		

%	$\tau.10^5$	%	$\tau.10^5$
15°			
44.90	58	19.83	50
42.65	65	17.88	46
40.23	63	15.95	48
38.06	59	14.75	45
35.85	63	12.50	43
33.95	58	9.96	39
31.74	61	8.20	34
29.74	60	6.58	31
27.93	65	4.75	26
25.71	56	2.36	22
23.62	56	0	16
21.58	50		

Lunge and Smith, 1883

%	d	%	d
15°			
0	0.999	22.25	1.075
1.66	1.005	23.78	.080
3.18	.010	25.31	.085
4.60	.015	26.82	.090
6.04	.020	28.33	.095
7.49	.025	29.93	.100
8.93	.030	31.77	.105
10.35	.035	33.45	.110
11.86	.040	35.08	.115
13.36	.045	36.88	.120
14.83	.050	38.71	.125
16.16	.055	40.34	.130
17.70	.060	42.20	.135
19.18	.065	44.29	.140
20.70	.070	44.90	.1404

Smith, 1883

%	d	%	d
	14°		
0	0.9993	23	1.0781
1	1.0033	24	.0815
2	.0066	25	.0850
3	.0100	26	.0881
4	.0133	27	.0911
5	.0166	28	.0942
6	.0196	29	.0972
7	.0227	30	.1003
8	.0257	31	.1032
9	.0288	32	.1062
10	.0318	33	.1091
11	.0355	34	.1120
12	.0392	35	.1149
13	.0430	36	.1177
14	.0467	37	.1205
15	.0505	38	.1234
16	.0540	39	.1262
17	.0574	40	.1290
18	.0609	41	.1315
19	.0643	42	.1341
20	.0678	43	.1366
21	.0712	44	.1392
22	.0746	45	.1417

Rakshit, 1925

%	d	%	d
	20°		
1	1.00278	20	1.04005
5	1.01969	25	1.09605

Lunge and Smith, 1883

%	$\tau \cdot 10^5$	%	$\tau \cdot 10^5$
	15°		
1.66	20	23.78	70
3.18	20	25.31	70
4.60	30	26.82	70
6.04	30	28.33	70
7.49	30	29.93	70
8.93	40	31.77	70
10.35	40	33.45	70
11.86	40	35.08	70
13.36	50	36.88	70
14.83	50	38.71	70
16.16	50	40.34	70
17.70	50	42.20	70
19.18	50	44.29	70
20.70	50	44.90	70
22.25	60		

Water + Ammonium bicarbonate (CH_5O_3N)

Dibbits, 1874

%	f.t.	%	f.t.
10.63	0	15.83	16
10.91	1	16.22	17
11.18	2	16.60	18
11.45	3	16.98	19
11.77	4	17.35	20
12.05	5	17.76	21
12.36	6	18.14	22
12.70	7	18.50	23
13.04	8	18.90	24
13.34	9	19.28	25
13.16	10	19.68	26
14.01	11	20.06	27
14.38	12	20.47	28
14.75	13	20.85	29
15.01	14	21.26	30
15.47	15		

Fedotiev, 1904 and Fedotiev and Koltunov, 1914

%	f.t.
10.63	0
15.71	15
21.23	30

Neumann and Domke, 1928

f.t.	c
20	18.32
30	24.14

Jänecke, 1929

%	f.t.	%	f.t.
15.2	13.7	53.2	74.8
19.65	24.2	56.7	81.2
27.6	42.1	63.1	89.8
30.8	48.3	90.0	105
33.9	54.4	95.0	108
43.2	63.6	100	107.5

Water + Ammonium oxalate ($C_2H_8O_4N_2$)

Benrath, 1942

%	f.t.	%	f.t.
30	114	50	171
35	130	55	186
40	144	60	195
45	157		

Hill and Distler, 1935

%	f.t.	%	f.t.
2.269	0.0	8.619	44.75
3.107	10.3	12.30	60.3
3.892	16.75	16.44	74.8
4.985	25.0	20.86	87.7
6.630	34.97	25.79	99.8

Water + Ammonium lactate ($C_3H_9O_3N$)

Dietz, Degering and Schopmeyer, 1941

%	b.t./742	%	b.t./742
0	99.33	50	105.49
5	99.53	60	107.9
10	99.93	70	111.9
20	(101.01)	80	117.8
30	101.91	90	132.3
40	(104.07)		

%	f.t.
5	- 1.9
10	- 3.3
20	- 7.6
30	-14.8
50	-21.1
70	-51.8

%	d	%	d
	25°		
0	0.99707	40	(1.0954)
1	0.9996	50	1.1174
2	1.0020	60	1.1394
5	1.0092	70	1.1596
10	1.0218	80	1.1793
20	(1.0461)	90	1.1969
30	1.0703		

%	η	%	η
	25°		
0	894	40	(3150)
1	929	50	5410
2	948	60	10103
5	1017	70	22573
10	1173	80	74980
20	(1543)	90	537000
30	2748		

%	σ	%	σ
	29°		
0	71.4	60	35.4
20	(66.1)	70	35.6
30	35.4	80	38.2
40	(36.8)	90	44.5
50	34.4		

%	n_D	%	n_D
	25°		
0	1.3329		
1	1.3340	40	(1.3902)
2	1.3353	50	1.4059
5	1.3397	60	1.4208
10	1.3470	70	1.4351
20	(1.3607)	80	1.4496
30	1.3761	90	1.4630

Water + Ammonium malate 1 ($C_4H_{12}O_5N_2$)

Timmermans and Dumont, 1931

%	f.t.	%	f.t.
1	- 0.25	16.7	- 4.00 E
2	- 0.55	22.23	+10
3	- 0.76	26.41	+20
5	- 1.11	29.45	+25
9	- 2.08		

Schneider, 1881

%	d	%	d
	20°		
63.046	1.2666	38.602	1.1585
51.688	.2125	28.160	.1171
48.286	.1978	21.785	.0895
42.365	.1728	17.303	.0710
39.835	.1632	0	0.9982

%	$(\alpha)_D$	%	$(\alpha)_D$
	20°		
63.046	-4.20	38.602	-5.47
51.688	-4.60	28.160	-6.30
48.286	-4.99	21.785	-6.90
42.365	-5.27	17.303	-7.23
39.835	-5.47		

Water + Ammonium acid malate ($C_4H_9O_5N$)

Schneider, 1881

%	d	%	d
	20°		
27.591	1.1149	19.447	1.0782
24.887	.1020	12.916	.0516
22.005	.0900	6.406	.0275

%	$(\alpha)_D$	%	$(\alpha)_D$
	20°		
27.591	-6.04	19.447	-6.33
24.887	-6.15	12.916	-6.46
22.005	-6.18	6.406	-6.65

Water + Ammonium tartrate ($C_4H_{12}O_6N_2$)

Timmermans and Dumont, 1931

%	f.t.	%	f.t
16.7	-4.03	36.03	10
23.1	-5.85	37.82	15
28.6	-7.60	41.08	20

E : 28.6 % -7.58°

Campbell and Slotin, 1933

%	f.t.	%	f.t.
30.51	0.0	44.27	45.0
36.75	15.0	46.56	60.0
38.95	30.0		

de Garcia, 1920

N	d	N	d
	18°		
4	1.153154	0.25	1.009950
2	.080250	0.125	.004502
1	.041058	0.062	.001952
0.5	.020870		

Guillaume, 1946

%	d
20°	
10.96	1.0521
19.3	.0937
36.0	.1752

de Garcia, 1920

N	n_D	N	n_D
	18°		
4	1.3931	0.25	1.3375
2	1.3642	0.125	1.3356
1	1.3495	0.062	1.3344

Peychès, 1936

N	$(\alpha)_{Hg_g}$	N	$(\alpha)_{Hg_g}$
	20°		
0.001	46.4	0.300	49.6
0.004	46.7	0.500	50.2
0.010	47.0	0.750	50.7
0.020	47.3	1.000	51.0
0.050	48.0	1.250	51.4
0.100	48.5	1.500	51.7
0.200	49.1		

Guillaume, 1946

%	$n_{5780\,Å}$
20°	
10.96	3.900
19.3	3.837
36.0	3.710

Britton and Jackson, 1934

M	$(\alpha)^{mol}_{5461\,Å}$	M	$(\alpha)^{mol}_{5461\,Å}$
	25°		
0.1	7.02	0.6	7.26
0.2	7.09	0.7	7.29
0.3	7.15	0.8	7.31
0.4	7.21	0.9	7.32
0.5	7.23	1.0	7.34

Guillaume, 1946

%	*(α)magn. 10^6 5780 Å
20°	
10.96	1.3537
19.3	1.3690
36.0	1.4005

*In radians, gauss, centim.

Water + Ammonium citrate ($C_6H_{17}O_7N_3$)

de Garcia, 1920

N	d	N	d
	17.5°		
4	1.132098	0.25	1.009238
2	.069996	0.125	.004650
1	.036390	0.062	.002288
0.5	.018686		

N	n_D	N	n_D
	17.5°		
4	1.3903	0.25	1.3372
2	1.3636	0.125	1.3352
1	1.3487	0.062	1.3344
0.5	1.3411		

Water + Ammonium chlorsuccinate ($C_4H_{11}O_4N_2Cl$)

Timmermans and Dumont, 1931

%	f.t.	%	f.t.
23.1	- 8.68	33.3	- 15.08
24.8	- 8.80 E	38.0	+ 15
28.6	- 11.73	40.8	+ 20

Water + Ammonium acid chlorsuccinate ($C_4H_8O_4NCl$)

Timmermans and Dumont, 1931

%	f.t.
21.6	- 5.0 E
34.7	+20

Water + Ammonium thiocyanate (CH_4N_2S)

Tammann, 1915

%	p	%	p
	100°		
6.69	739.4	44.32	533.4
10.63	724.4	48.37	505.8
20.43	681.0	52.36	473.4
25.94	651.6	54.47	456.8
31.21	620.8	59.55	415.5
36.56	589.2	61.78	399.9

Rüdorff, 1872

%	f.t.	%	f.t.
4.76	-2.12	16.67	- 8.10
7.41	-3.40	19.35	- 9.85
9.09	-4.20	23.08	-12.15
10.71	-5.05	24.24	-12.80
12.28	-5.90		

Vasilyev, 1910

E : 41.94 % -25.2°

Foote, 1921

%	f.t.
58.23	10
62.54	20
66.26	30

Kordes, 1926

%	f.t.
0	0
E	-25
100	+ 149

Schnidman, 1934

%	f.t.	%	f.t.
59.57	13.00	74.53	51.37
62.20	18.99	74.94	52.50
64.95	26.33	76.63	57.23
65.93	28.82	78.53	62.46
68.86	36.36	80.18	67.21
70.05	39.44	81.73	71.53
72.86	46.92		

Dixon and Taylor, 1910

mol %	t	d
12.32	16	1.0585
6.28	15	1.0944
4.71	15	1.1114

Rubien, 1911

N	d	N	d
	18°		
0	0.99862	1.0017	1.01603
0.1039	1.00049	2.0082	.03291
0.2039	1.00224	4.0127	.06514
0.5108	1.00759		

Heydweiller, 1913

N	d	N	d
	18°		
0	0.99862	1.0	1.01588
0.1	1.00043	2.0	.03260
0.2	1.00215	4.0	.06500
0.5	1.00742		

Heydweiller, 1909

N	n_D	N	n_D
	18°		
0.1	1.33506	1.0	1.39634
0.2	.33686	2.0	.36894
0.4	.34222	4.0	.40406

Dixon and Taylor, 1910

mol %	t	n_D
7.50	16	1.39634
17.51	15	.43617
13.74	15	.45521

Rubien, 1911

N	n_D	N	n_D
	18°		
0	1.33327	1.0017	1.35136
0.1039	.33513	2.0082	.36908
0.2039	.33693	4.0127	.40427
0.5108	.34242		

Heydweiller, 1913

N	λ	N	λ
	18°		
0.1	10.43	1.0	89.88
0.2	19.97	2.0	169.5
0.5	47.00	4.0	296.0

Dhar, 1914

M	κ	M	κ
		30°	
8.86	4057	2.95	2832
5.906	4475	6.66	4060
4.43	3841		

Water + Dodecylammonium acetate ($C_{14}H_{31}O_2N$)

Ralston, Hoerr and Hoffman, 1941 (fig.)

%	f.t.	%	f.t.
0	0	50	- 4
12	0	60	- 5
15	- 1	75	- 5
20	- 2	80	- 5
23	- 2	90	- 5
35	- 3	95	- 5
40	- 3	100	- 6

%	tr.t.	%	tr.t.
		I	
24	+ 2.5	70	125
30	55	75	130
40	85	80	128
45	85	85	120
50	75	90	110
55	65	95	90
57	65	98	65
60	100	100	70
		II	
62	- 4	90	+40
68	+ 2	95	+52
75	+10	98	+65
80	+20	100	+70
86	+30	(see author)	

Hoerr and Ralston, 1942

mol %	f.t.
100	69.3
88	64 E
20	129.0 (4+1)
9	57 E
6	86 (20+1)
2	- 1 E

Water + Octadecylamine acetate ($C_{20}H_{43}O_2N$)

Ralston, Hoerr and Hoffman, 1941 (fig.)

Dew point	Dp	Dew point	Dp
	50.0 %		
29.6	0.7	59.9	0.7
39.8	0.6	19.4	0.6
49.9	0.5		
	75.0 %		
29.6	0.7	59.9	0.7
39.8	0.6	19.1	0.9
49.9	0.5		
	95.0 %		
24.3	1.0	39.7	0.7
29.4	0.9	49.7	1.4
34.6	0.9	59.8	1.4
	99.0 %		
39.3	2.0	59.8	1.4
49.5	2.3		

%	f.t.
97	78
100	85

%	sat.t.	%	sat.t.
0	52	20	175
20	53	75	175
30	54	80	170
25	106	90	130

% (to gel)	tr.t.
0	48
20	49
40	50

Water + Hexanolamine oleate ($C_{24}H_{47}NO_3$)

Gonick and Mc. Bain, 1946

%	f.t.	%	f.t.
21.5	180	55.3	122
22.3	183	63.7	100
25.0	181	74.3	71
30.0	177*	78.5	54
35.5	164*	83.7	22
37.5	159*	85.5	16.5
39.3	143*	86.8	9
39.6	153*	87.3	8
40.2	156	88.0	7
41.4	154	91.8	14
45.7	143	94.5	27
49.8	135	97.6	43

* $L_1 + L_2$ at room t.

%	n_D	%	n_D
	25°		
3.410	1.3385	21.54	1.3669
6.702	1.3441	48.21	1.4109
10.40	1.3494	53.25	1.4172
11.64	1.3521	62.29	1.4320
16.10	1.3583		

t	$\varkappa$	t	$\varkappa$
	78.5 %		
25	1.1	60	4.8
40	2.0	70	6.2
47	2.5	80	7.5
50	3.0	90	9.0
58	4.5		

Water + Ethylenediamine tartrate d ($C_6H_{14}N_2O_6$)

Dauncey and Still, 1951

%	f.t.	%	f.t.
57	26	61	46
58	31.2	62	50.8
59	36.5	63	55
60	41	(1+1)	

%	f.t.	%	f.t.
56.8	25	60.0	41
57.7	30	60.8	45
58.3	33	61.5	48
58.7	35	61.9	50
59.7	40	63.0	55

Water + Aniline acetate ($C_8H_{11}O_2N$)

Miskidzhyan and Volina, 1956

mol %	ϰ	mol %	ϰ
20°			
100.0	19.80	20.0	219.1
90.0	24.71	10.0	290.3
70.0	35.40	5.0	318.1
50.0	90.86	3.0	293.5
33.0	135.2	2.0	266.5
25.0	176.8	1.0	198.1

Water + Aniline acetate . Acetic acid ($C_{10}H_{15}O_4N$)

Miskidzhyan and Volina, 1956

mol %	ϰ	mol %	ϰ
20°			
100.0	25.80	20.0	197.2
90.0	45.41	10.0	286.3
70.0	58.86	5.0	332.1
50.0	88.04	3.0	332.6
33.0	138.1	1.0	220.9

Water + Pyridine acetate ($C_7H_9O_2N$)

Miskidzhyan and Volina, 1956

mol %	ϰ	mol %	ϰ
20°			
98	6.126	40	59.97
95	5.343	30	118.0
90	7.203	20	162.9
80	9.793	10	280.6
70	16.74	5	330.7
60	23.65	2	264.6
50	36.75		

Water + Pyridine acetate . Acetic acid ($C_9H_{13}O_4N$)

Miskidzhyan and Volina, 1956

mol %	ϰ	mol %	ϰ
20°			
98	33.35	40	90.24
95	37.03	30	120.67
90	37.75	20	174.3
80	43.54	10	270.5
70	49.88	5	330.9
60	57.58	2	294.6
50	71.76		

Water + Quinoline acetate ($C_{11}H_{11}O_2N$)

Miskidzhyan and Volina, 1956

mol %	ϰ	mol %	ϰ
20°			
98	0.431	40	12.01
95	0.581	30	22.56
90	0.616	20	39.19
80	0.789	10	80.16
70	1.859	5	130
60	3.950	2	120.2
50	5.986		

Water + Quinoline acid acetate ($C_{13}H_{15}O_4N$)

Miskidzhyan and Volina, 1956

mol %	ϰ	mol %	ϰ
20°			
98	4.233	40	21.43
95	4.786	30	31.48
90	5.282	20	51.41
80	6.593	10	93.97
70	10.08	5	131.9
60	11.38	2	143.2
50	15.18	1	114.05

Water + Methylamine chlorhydrate (CH_6NCl)

Tammann, 1915

%	p
100°	
4.25	747.4
11.40	718.8
18.61	680.3
32.75	594.3
40.61	539.2
49.62	669.4

Water + Dimethylamine chlorhydrate (C_2H_8NCl)

Perkin, 1896

%	d 15°	d 20°	d 25°
0	0.9991	0.9983	0.9971
29.04	1.0386	1.0367	-
58.085	1.0780	1.0753	-
100	1.1180	-	1.1121

mol %	molar refractive power H_α	H_β	H_γ
13.94	77.688	80.222	81.980

%	t	(α) (H_2O=1)
29.04	14.8	1.3419
58.085	13.8	1.7255
100.00	16.7	2.3363

Water + Trimethylamine chlorhydrate ($C_3H_{10}NCl$)

Tammann, 1915

%	p
	100°
11.42	737.2
22.04	693.2
30.93	658.9
41.09	592.3
49.07	531.0

Water + Ethylamine chlorhydrate (C_2H_8NCl)

Tammann, 1915

%	p
	100°
7.62	743.1
18.45	702.4
31.15	638.1
47.09	626.5
52.75	584.4

Schiff and Monsacchi, 1897 - 1898

%	d	%	d
	21°		
65	1.0496	25	1.0253
45	.0414	15	.0150
35	.0343	5	.0039
60	1.0481	20	1.0202
50	.0441	10	.0095
40	.0380	0	0.9980
30	.0299		

70.59 % (sat. sol.) f.t. = 17°

Water + Diethylamine chlorhydrate ($C_4H_{12}NCl$)

Tammann, 1915

%	p	%	p
	100°		
10.63	747.4	39.16	636.5
20.67	718.1	50.07	681.8
29.96	684.3	52.50	559.2

Schiff and Monsacchi, 1897 - 1898

%	d	%	d
	21°		
42	1.0130	14	1.0028
28	.0084	7	.00034
21	.0056	4	0.99944
48	1.01408	12	1.00207
36	.01133	6	.00006
24	.00675	0	0.9980
16	.00353		

Water + Triethylamine chlorhydrate ($C_6H_{16}NCl$)

Tammann, 1915

%	p	%	p
	100°		
8.62	750.6	39.23	651.1
17.97	733.0	47.92	603.7
29.91	692.7	51.39	583.2

Schiff and Monsacchi, 1897 - 1898

%	d	%	d
	21°		
54	1.0157	27	1.0037
45	.0118	18	.00057
36	.0075	9	0.9986
48	1.0134	14	0.9995
40	.0094	4	.9984
32	.0057	0	.9980
24	.0025		

Water + Tetramethylammonium chloride ($C_4H_{12}NCl$)

Tammann, 1915

%	p	%	p
	100°		
12.92	728.4	38.77	602.3
24.09	686.7	53.43	471.0
31.24	649.1	53.84	467.9

Water + Tetraethylammonium chloride ($C_8H_{20}NCl$)

Schiff and Monsacchi, 1897 - 1898

%	d	%	d
	21°		
63	1.0366	14	1.0017
42	.0176	7	0.9998
28	.0085	4	.9988
21	.0044	0	.9980

Taylor and Moore, 1908

mol %	d	mol %	d
	25°		
0	0.99707	0.7878	0.99815
0.2914	0.99713	1.148	0.99935
0.5893	0.99755		
	35°		
0.2935	0.99401	0.7909	0.99467
0.4747	0.99426	1.0922	0.99570

m	η	m	η
25°		35°	
0	895	0.2935	798
0.2914	979	0.4747	846
0.5893	1086	0.7509	936
0.7878	1173	1.0922	1049
1.148	1359		

Water + sec. Butylammonium chloride ($C_4H_{12}NCl$)

Baldwin, 1937

w.l.	(α)	w.l.	(α)
	20°		
	c = 22.84 g/100cc H_2O		
6708	0.12	6497	0.13
6438	0.13	6362	0.13
6104	0.14	5893	0.16
5780	0.16	5700	0.17
5536	0.18	5461	0.19
5219	0.21	5209	0.21
5153	0.22	5106	0.24
5086	0.24	4943	0.26
4811	0.27	4800	0.27
4722	0.28	4678	0.29
4602	0.31	4584	0.29
4554	0.31	4477	0.31
4433	0.32	4358	0.36
4353	0.35	4253	0.37
4138	0.40	4007	0.42
4030	0.45	3951	0.47
3852	0.50	3792	0.54
3713	0.57	3668	0.60
3584	0.63	3535	0.66
3471	0.69	3450	0.71
3400	0.75	3355	0.78
3310	0.81	3295	0.82
3250	0.90	3134	1.02
3100	1.09	3048	1.16
2999	1.19	2975	1.26

Taylor and Moore, 1908

m	d	m	d
25°		35°	
0	0.99707	0	0.99389
0.2733	.99520	0.1772	.99266
0.2771	.99529	0.3324	.99161
0.6177	.99433	0.7884	.99013
0.7884	.99425		

m	η	m	η
25°		35°	
0	895	0	725
0.2733	1105	0.1772	818
0.2771	1109	0.3324	907
0.6177	1447	0.7884	1298
0.7884	1626		

Water + Tetrapropyl ammonium chloride ($C_{12}H_{28}NCl$)

David, 1910

%	d 0°	25°	35°	56°
0.0	0.9999	0.9971	0.9942	0.9853
0.93	.9997	.9968	.9938	.9850
1.73	.9995	.99645	.9933	.98465
3.12	.99915	.99595	.9928	.9839
6.87	.9991	.9952	.99195	.9826
9.75	.99895	.99445	.9908	.98155
10.90	.9992	.99465	.9910	.98155
15.69	.99965	.9940	.9901	.9798
23.98	1.0030	.99465	.9902	.9786
27.70	.0055	.9959	.9909	.9792

Water + Octylammonium chloride ($C_8H_{20}NCl$)

Ralston and Hoerr, 1942

N	λ
20°	
0.7277	48.25
0.9348	45.08
40°	
0.7655	71.56
0.9570	66.42
60°	
0.6370	102.5
0.9001	94.80

Water + Decylammonium chloride ($C_{10}H_{24}NCl$)

Ralston and Hoerr, 1942

N	λ
20°	
0.5900	33.55
0.8270	33.12
40°	
0.6232	59.35
0.8890	59.02
60°	
0.6600	79.35
0.8250	77.68

Ralston and Hoerr, 1942 (fig.)

M	η (H_2O=1)	M	η (H_2O=1)
30°			
0	1	0.74	1.5
0.3	1	0.78	2.4
0.45	1	0.80	4.0
0.53	1	0.84	9.0
0.65	1.2	0.88	23.0

Water + Methyldodecylammonium chloride ($C_{13}H_{30}NCl$)

Broome, Hoerr and Harwood, 1951

%	f.t.	%	f.t.
0	0	56	27
0.1	0	59	27
0.3	15	70	32
10	20	86	48 tr.t.
20	23	100	177
40	25	(1+2)	

Water + Dimethyldodecylammonium chloride ($C_{14}H_{32}NCl$)

Broome, Hoerr and Harwood, 1951

%	f.t.	%	f.t.
0	0	74	+ 16
20	0	88	38 tr.t.
40	- 0.1	94	145
56	- 0.2 E	95	145
60	+ 3	100	198
70	+16	(1+2)	

Water + Dodecylammonium chloride ($C_{12}H_{28}NCl$)

Broome, Hoerr and Harwood, 1951

%	f.t.	%	f.t.
0	0	60	36
0.1	0	68	37 tr.t.
0.3	25	80	52
10	26	87.5	57.5
20	27	100	178
40	32	(1+2)	

Water + Trimethyldodecylammonium chloride ($C_{15}H_{34}NCl$)

Broome, Hoerr and Harwood, 1951

%	f.t.	%	f.t.
0	0	70	0
20	0	80	3
40	- 0.2	87	5 (1+2)
50	- 2	90	50
61	- 5 E	100	228

Water + Tetradecylammonium chloride ($C_{14}H_{32}NCl$)

Ralston and Hoerr, 1942

N	λ
60°	
0.4574	56.46

Water + Hexadecylammonium chloride ($C_{16}H_{36}NCl$)

Ralston and Hoerr, 1942

N	λ
60°	
0.1880	43.78

Water + Cetyl trimethylammonium bromide ($C_{19}H_{42}NBr$)

Adam and Pankhurst, 1946 (fig.)

%	f.t.	%	f.t.
0	20	2	25.2
0.25	22	5.6	25.5
0.5	24	7.8	25.8
1	25		

Water + Tetraethylammonium bromide ($C_8H_{20}NBr$)

Taylor and Moore, 1908

m	d	m	d
25°			
0	0.99707	0.7568	1.0227
0.2819	1.0071	1.1363	.0342
0.5082	.0149		
35°			
0	0.9939	0.7213	1.0180
0.3309	1.0054	1.1367	.0305
0.4524	.0084		

Taylor and Moore, 1908

m	η	m	η
25°			
0	895	0.7568	1152
0.2819	980	1.1363	1314
0.5082	1059		
35°			
0	725	0.7218	910
0.3309	799	1.1367	1042
0.4524	825		

Water + Tetraethylammonium iodide ($C_4H_{20}NI$)

Walden, 1906

t	%	d
25	31.44	0.9971
0	15.54	0.9999

Traube, 1895

%	d	%	d
20°			
0	0.99823	9.946	1.02636
2.753	1.00519	16.041	1.04508
5.271	1.01257		

Water + Aminoguanidonium bisulfate ($CH_8O_4N_4S$)

Pitha and Smith, 1948 (fig.)

%	f.t.	%	f.t.
9.1	5	35	47.5
16.7	23	35	50
23.1	35	37.5	53
28.6	42	41.2	57
33.3	45	44.4	62

Water + Guanidine hydrochloride (CH_6N_3Cl)

Tammann, 1915

%	p	%	p
	100°		
7.72	740.1	39.45	626.2
20.34	704.4	49.67	569.4
30.77	666.3	58.54	508.7

Water + Guanidine perchlorate ($CH_6N_3O_4Cl$)

Mazzucchelli and Alba, 1927

%	d	
	15°	25°
4,98	1.02043	1.01778
9.99	.04242	.03905
14.98	.06492	.06099

Water + Aniline hydrochloride (C_6H_8NCl)

Tammann, 1915

%	p	%	p
	100°		
10.45	741.4	39.42	670.7
19.30	723.7	60.47	589.4
30.85	694.8		

Guthrie, 1878

%	f.t.	%	f.t.
1	-0.2	12	- 3.3
4	-1.0	13	- 3.6
5	-1.3	20	- 5.7
6	-1.6	25	- 7.2
7	-1.9	30	- 9.0
8	-2.2	31.36	-10.7 E
9	-2.5	35	- 8.0
10	-2.8	40.35	0
11	-3.0	46.72	+13.1

House and Wolfenden, 1952

mol %	%	f.t.
8.112	38.84	0
10.94	46.92	15
12.99	51.78	25
16.65	59.64	40
35.5	79.83	100

Perkin, 1896

%	d	
	15°	20°
42.53	1.0868	1.0842
0	0.9991	0.9971

%	(α)magn.
42.53	1.6251 at 14.2

Barbier and Roux, 1890

c	t	dispersive power
6.0	8.8	0.381
8.0	9.2	0.390
10.0	10.5	0.407
20.0	10.4	0.464
30.0	10.9	0.524
40.0	10.3	0.585

Water + Aniline nitrate ($C_6H_8N_2O_3$)

Tammann, 1915

%	p	%	p
	100°		
17.59	734.6	46.34	682.2
30.04	714.3	49.73	674.0
37.46	701.6	56.31	654.9

Guthrie, 1878

%	f.t.	%	f.t.
2	-0.4	10	- 2
4	-0.8	10.61	- 2:2 E
6	-1.1	10.94	0
8	-1.5	15.58	+13.1

Water + Aniline sulfate ($C_6H_9O_4NS$)

Guthrie, 1878

%	f.t.	%	f.t.
1	-0.1	4.91	0
2	-0.2	5.84	+13.1
4.5	-0.6	15.35	100.0
4.85	-0.9 E		

Water + Phenylammonium phenolate ($C_{12}H_{13}NO$)

Alexejev, 1886

%	sat.t.	%	sat.t.
3.8	38.5	53.6	136.5
4.4	47.5	63.2	132.5
6.56	79	75:4	116.5
19.6	131.5	83.38	79
34.37	140.5	91.4	38.5
41.2	138.5		

Water + Aniline pyrogallate ($C_{24}H_{27}O_3N_3$)

Guthrie, 1878

%	f.t.	%	f.t.
9.09	-1.0	33.65	0
20.00	-2.7	46.00	+17.8
23.93	-4.6 E	100	126-128

Water + Aniline salicylate ($C_{13}H_{13}O_3N$)

Guthrie, 1878

%	f.t.	%	f.t.
0.24	-0.06 E	0.65	+ 6.2
0.28	0	0.77	+16.8

Water + Aniline arsenyltartrate ($C_{10}H_{12}O_7NAs$)

Yvon, 1910

c	α_D	c	α_D
	16°		
1	+14.00	16	64.62
2	24.12	17	65.26
3	35.33	18	66.16
4	40.88	19	66.21
5	45.89	20	66.60
6	50.00	21	67.78
7	52.85	22	68.13
8	55.50	23	69.21
9	57.61	24	68.91
10	58.50	25	69.12
11	59.09	26	69.00
12	61.11	27	69.26
13	62.30	28	68.88
14	62.71	29	68.62
15	64.08	30	68.86

Yvon, 1910

%	f.t.
29.50	15
32.28	20
65.30	35
88.00	100

Water + Dimethylaniline hydrochloride ($C_8H_{12}NCl$)

Tammann, 1915

%	p	%	p
	100°		
10.72	730.1	34.49	606.5
18.94	698.2	46.56	514.0
22.69	677.1		

Water + o-Phenylenediamine hydrochloride ($C_6H_{10}N_2Cl_2$)

Perkin, 1896

%	(α) magn.
15°	
18.264	1.2826
13.397	1.1869
20.08	1.2884

%	d 15°	d 25°
0	0.9991	0.9971
18.264	1.0637	1.0599
13.397	1.0445	1.0417
20.08	1.0678	1.0641

Water + Phenylethylamine hydrochloride ($C_8H_{12}NCl$)

Leithe, 1929

%	c	d
15°		
24.93	25.86	1.0370
14.62	14.95	1.0216
3.23	3.25	1.005

Leithe, 1929

c	(α)$_D$
15°	
25.86	+7.4
14.95	+5.4
3.23	+3.5

Water + Pipecoline hydrochloride d ($C_6H_{14}NCl$)

Leithe, 1929

%	d	(α)$_D$
26.3	1.026	-4.7
14.4	1.014	-4.4
2.44	1.002	-4.0

Water + Coniine acetate ($C_{10}H_{21}NO_2$)

Zecchini, 1893

%	(α)$_D$	t
31.5614	1.16	26.6

Water + Nicotine hydrochloride ($C_{10}H_{15}N_2Cl$)

Schwebel, 1882

%	d	%	d
20°			
0	0.9982	30.023	1.0520
9.988	1.0158	42.870	1.0845
19.798	1.0337		

Gennari, 1895 - 1896

%	d
20°	
36.852	1.06681
18.414	1.02956

Schwebel, 1882

%	(α)$_D$	%	(α)$_D$
20°			
9.988	+14.44	30.023	+16.75
19.798	+15.77	42.870	+20.02

Gennari, 1895 - 1896

%	(α) red	(α) yellow	(α) green	(α) pale blue	(α) dark blue
20°					
36.852	15.21	19.62	24.29	27.92	-
18.414	12.13	15.45	18.72	21.88	23.84

Water + Nicotine sulfate ($C_{20}H_{30}N_4O_4S$)

Schwebel, 1882

%	d	%	d
	20°		
0	0.9982	42.930	1.1225
9.946	1.0253	49.193	1.14299
20.004	1.0537	69.445	1.2078
33.091	1.0924		

Gennari, 1895 - 1896

%	d
20°	
45.437	1.13100
35.243	1.109912
31.460	1.08958

Schwebel, 1882

%	$(\alpha)_D$	%	$(\alpha)_D$
	20°		
9.946	+14.52	42.930	+16.44
20.004	+14.23	49.193	+16.87
33.091	+15.79	69.445	+17.93

Gennari, 1895 - 1896

%	(α) red	yellow	green	pale blue	dark blue
		20°			
45.437	13.07	16.54	20.51	23.00	25.87
35.243	12.49	16.00	19.46	22.48	24.90
31.460	12.19	15.66	19.20	21.82	24.74

Water + Nicotine acetate ($C_{12}H_{18}N_2O_2$)

Schwebel, 1882

%	d	%	d
	20°		
4.856	1.0060	23.002	1.0364
11.087	1.0154		

Gennari, 1895 - 1896

%	d	%	d
53.721	1.08903	24.276	1.03792
44.300	1.06844	0	0.99823
26.481	1.04052		

Schwebel, 1882

%	$(\alpha)_D$	%	$(\alpha)_D$
	20°		
4.856	+13.81	23.002	+17.10
11.087	+14.75		

Gennari, 1895 - 1896

%	(α) red	yellow	green	pale blue	dark blue
		20°			
53.721	16.44	21.36	25.81	29.05	-
44.300	14.30	18.85	22.83	26.57	31.37
26.481	13.21	17.35	21.23	23.98	-
24.276	13.00	16.96	20.40	23.50	25.84

Water + Betaine hydrochloride ($C_5H_{12}O_2NCl$)

Stolzenberg, 1914

%	f.t.	%	f.t.
28.99	- 5	50.34	57
28.84	- 5	50.53	57
37.28	+20.7	56.20	78.2
38.76	20.7	56.29	78.2
46.75	45.3	59.66	95
46.76	45.3	61.67	95

Water + Betaine hydrobromide ($C_5H_{12}O_2NBr$)

Stolzenberg, 1914

%	f.t.	%	f.t.
25.38	- 5	54.81	57.3
24.34	- 5	54.85	57.3
39.16	+20.6	61.96	79
39.17	20.6	61.88	79
51.71	45.3	66.04	95
50.88	45.3	66.18	95

Water + Betaine basic hydroiodide ($C_{10}H_{23}O_4N_2I$)

Stolzenberg, 1914

%	f.t.	%	f.t.
17.77	+ 1.7	45.25	46.5
17.55	1.7	44.97	46.5
28.55	18.5	53.01	62
28.38	18.5	63.61	87

Water + Betaine hydroiodide ($C_5H_{12}O_2NI$)

Stolzenberger, 1914

%	f.t.	%	f.t.
35.16	- 4	69.20	47.5
35.31	- 4	74.02	62.3
61.17	+28	73.74	62.3
61.12	28	76.59	76
70.45	47.5	76.36	76

Water + Betaine sulfate ($C_5H_{13}O_6NS$)

Stolzenberg, 1914

%	f.t.	%	f.t.
45.99	0	68.86	44
56.87	20	76.58	62.2

Water + Betaine phosphate ($C_5H_{14}O_6NP$)

Stolzenberg, 1914

%	f.t.	%	f.t.
31.39	0.5	62.68	64
42.10	19.5	69.52	80
54.90	45		

Water + Novocaine iodide ($C_{13}H_{21}N_2O_2I$)

Holleman and de Jong, 1940

$L_1 + L_2 + C = 32°$

Water + Novocaine perchlorate ($C_{13}H_{21}N_2O_6Cl$)

Holleman and de Jong, 1940

C.S.T. = 78° $L_1 + L_2 + V = 56°$

Water + Novocaine thiocyanate ($C_{14}H_{21}N_3O_2S$)

Holleman and de Jong, 1940

C.S.T. = 54° $L_1 + L_2 + C = 36°$

Water + Cinchonidine sulfate ($C_{38}H_{46}N_4O_6S$)

Polak, 1914

mol %	f.t.	mol %	f.t.
0	0	5.63	130.0
0.15	73.6	6.7	135.8
0.27	86.8	6.7	137.8
0.62	95.3	8.78	147.5
1.03	98.7	10.54	150.0
1.44	101.0	12.34	152.7
1.89	103.0	14.8	156.0
2.56	106.2	17.64	163.5
3.03	109.1	32.27	187.0
3.44	111.4	100.0	242.0
4.42	120.0		

Water + Quinine sulfate ($C_{40}H_{50}N_4O_8S$)

Polak, 1914

mol %	f.t.	mol %	f.t.
0	0	7.5	155.0
0.04	82.5	10.5	160.5
0.11	104.5	10.9	162.0
0.23	120.0	11.7	164.0
0.70	127.0	11.7	164.0
1.95	132.9	11.8	164.5
2.75	135.5	12.5	161.5
3.7	141.0	20.0	173.5
5.2	151.5	31.8	176.5
6.3	153.5	100.0	232.5

Water + Glutamic acid hydrochloride ($C_5H_{10}NO_4Cl$)

Stolzenberg, 1914 (fig.)

c	f.t.	c	f.t.
34.5	10.0	57.0	60.0
38.5	20.0	62.0	70.0
42.5	30.0	68.0	80.0
46.5	40.0	74.0	90.0
52.0	50.0	81.0	100.0

Water + l-Hyoscyamine d camphorsulfonate ($C_{27}H_{39}O_7NS$)

Carr and Reynolds, 1910

c	$(\alpha)_D$	c	$(\alpha)_D$
	at room t.		
20	-5.25	8	-7.50
16	-6.16	4	-8.38
12	-6.75		

Water + Trimethylsulfonium iodide (C_3H_9IS)

Nasini and Costa, 1891

%	t	d
22.5495	14.6	1.10962
21.7903	14	1.10554
0	14	0.99927

Nasini and Costa, 1891

%	f.t.
1.5078	-0.280
4.3279	-0.680

Nasini and Costa, 1891

%	n H_α	n H_β	n H_γ
	14°		
0	1.33156	1.33757	1.34083
21.7903	.36811	.37613	.38074
22.5495	.36971	.37782	.38252

Water + Triethylsulfonium iodide ($C_6H_{15}IS$)

Nasini and Costa, 1891

%	t	d
0	10	0.99973
3.5413	10.3	1.01173
9.6731	10.7	1.03366
11.4625	9.4	1.03925
27.5240	12.3	1.10516

Nasini and Costa, 1891

%	f.t.	%	f.t.
1.4078	- 0.180	9.4333	- 1.050
2.1684	- 0.275	12.9450	- 1.340

Nasini and Costa, 1891

%	n H_α	n H_β	n H_γ
	10°		
0	1.33181	1.33782	1.34108
3.5413	1.33722	1.34378	1.34723
9.6731	1.34739	1.35443	1.35886
11.4625	1.35889	1.35889	1.36216
27.5240	1.38823	1.38823	1.39310

Dimethylthetine hydrobromide ($C_4H_9O_2BrS$)

Nasini and Costa, 1891

%	t	d
0	15	0.99913
13.0623	15.4	1.05750
24.1699	13.5	1.11203

%	n H_α	n H_β	n H_γ
	15°		
0	1.33150	1.33751	1.34077
13.0623	1.35274	1.35953	1.36324
24.1699	1.37249	1.38319	1.38416

Water + Trimethyl phosphate ($C_3H_9PO_4$)

Pagel and Maxey, 1941

mol %	f.t.	mol %	f.t.
0.0	0.0	44.9	-64.0
2.2	- 2.1	47.0	-68.3
4.7	- 4.4	49.0	-72.0
6.8	- 6.3	50.0	-73.4
9.8	- 8.6	52.0	-77.0
13.5	-12.8	E	-
19.4	-19.0	55.0	-72.8
21.0	-20.0	60.0	-67.0
24.5	-27.3	65.2	-62.4
27.5	-33.0	70.0	-58.7
32.5	-41.2	74.9	-55.4
35.0	-47.0	80.0	-52.8
36.4	-49.2	84.9	-50.2
39.0	-53.7	90.0	-49.1
40.0	-55.4	96.4	-47.1
41.0	-57.0	100.0	-46.1

Water + bis(Methylglucamine) salt of adipic acid-bis(2,4,6-triiod-3-carboxyanilide) ($C_{34}H_{48}O_{16}N_4I_6$)

Neudert and Röpke, 1956 (fig.)

%	f.t. (3+2)	f.t. (3+1)
25	-	83
30	-	70
35	-	58
41	4	45
45	25	38
47	34	34
49	40	-

S. WATER + ALCOHOLS .

LXI. WATER + METHYL AND ETHYL ALCOHOLS .

Water + Methyl alcohol (CH_4O)

Heterogeneous equilibria .

Sorel, 1900

L %	V %	L %	V %
at b.t.			
0	0	55	78.3
2	8	60	78.4
5	20	65	78.5
10	38	70	84.8
15	49.7	72.25	87.4
20	59.5	75	87.8
25	65.8	80	88.8
30	70	85	90.3
35	73	90	92.2
40	75	95	95.3
45	76.8	100	100.0
50	77.7		

Bergström, 1910

L %	V %	L %	V %
at b.t.			
0.1	0.6	30.0	72.3
0.5	3.8	35.0	75.3
1.0	7.4	40.0	77.8
2.0	14.8	45.0	81.1
3.0	18.8	50.0	82.3
4.0	23.8	55.0	84.3
5.0	28.6	60.0	86.0
6.0	32.6	65.0	87.8
7.0	36.3	70.0	89.6
8.0	39.7	75.0	91.4
9.0	43.1	80.0	93.0
10.0	46.8	85.0	94.8
15.0	57.0	90.0	96.5
20.0	63.8	95.0	98.3
25.0	68.8	100.0	100.0

Water + Trimethyl phosphate ($C_3H_9PO_4$)

Pagel and Maxey, 1941

mol %	f.t.	mol %	f.t.
0.0	0.0	44.9	-64.0
2.2	- 2.1	47.0	-68.3
4.7	- 4.4	49.0	-72.0
6.8	- 6.3	50.0	-73.4
9.8	- 8.6	52.0	-77.0
13.5	-12.8	E	-
19.4	-19.0	55.0	-72.8
21.0	-20.0	60.0	-67.0
24.5	-27.3	65.2	-62.4
27.5	-33.0	70.0	-58.7
32.5	-41.2	74.9	-55.4
35.0	-47.0	80.0	-52.8
36.4	-49.2	84.9	-50.2
39.0	-53.7	90.0	-49.1
40.0	-55.4	96.4	-47.1
41.0	-57.0	100.0	-46.1

Water + bis(Methylglucamine) salt of adipic acid-bis(2,4,6-triiod-3-carboxyanilide) ($C_{34}H_{48}O_{16}N_4I_6$)

Neudert and Röpke, 1956 (fig.)

%	f.t.	
	(3+2)	(3+1)
25	-	83
30	-	70
35	-	58
41	4	45
45	25	38
47	34	34
49	40	-

S. WATER + ALCOHOLS .

LXI. WATER + METHYL AND ETHYL ALCOHOLS .

Water + Methyl alcohol (CH_4O)

Heterogeneous equilibria .

Sorel, 1900

%		%	
L	V	L	V
at b.t.			
0	0	55	78.3
2	8	60	78.4
5	20	65	78.5
10	38	70	84.8
15	49.7	72.25	87.4
20	59.5	75	87.8
25	65.8	80	88.8
30	70	85	90.3
35	73	90	92.2
40	75	95	95.3
45	76.8	100	100.0
50	77.7		

Bergström, 1910

%		%	
L	V	L	V
at b.t.			
0.1	0.6	30.0	72.3
0.5	3.8	35.0	75.3
1.0	7.4	40.0	77.8
2.0	14.8	45.0	81.1
3.0	18.8	50.0	82.3
4.0	23.8	55.0	84.3
5.0	28.6	60.0	86.0
6.0	32.6	65.0	87.8
7.0	36.3	70.0	89.6
8.0	39.7	75.0	91.4
9.0	43.1	80.0	93.0
10.0	46.8	85.0	94.8
15.0	57.0	90.0	96.5
20.0	63.8	95.0	98.3
25.0	68.8	100.0	100.0

Wrewski, 1912

% L	% V	p	p_1	p_2
		39.9°		
0	-	54.7	54.7	-
23.86	75.00	105.3	39.2	66.12
27.87	77.72	114.0	38.5	75.51
32.19	80.28	122.4	37.2	85.19
35.77	81.50	129.6	37.3	92.34
40.05	83.34	136.4	35.8	100.6
44.47	84.73	143.7	34.9	108.8
54.38	87.37	160.5	32.8	127.7
61.23	88.88	173.1	31.5	141.6
69.18	91.18	185.7	27.3	158.4
79.82	94.14	207.5	20.7	186.8
91.66	97.55	235.3	10.1	225.2
100.00	100.00	260.7	-	260.7
		59.44°		
0	-	145.4	145.4	-
33.62	77.76	317.0	106.9	210.1
40.15	80.68	342.4	102.2	240.2
46.95	83.35	368.7	96.6	272.1
54.03	85.41	393.6	91.7	301.9
61.27	87.55	420.4	84.8	335.6
68.89	89.63	450.6	76.9	373.7
80.00	93.11	497.2	57.8	439.4
86.62	95.18	530.4	43.8	486.6
91.52	96.89	557.0	30.1	526.9
100.00	100.00	609.3	-	609 3

Bredig and Bayer, 1927

% L	% V	p	% L	% V	p
	39.76°			49.76°	
8.19	37.94	68.1	8.33	40.17	119.5
15.36	59.86	85.6	19.78	61.59	157.0
15.36	60.50	86.3	23.57	66.01	169.7
21.50	74.48	97.6	32.50	75.12	196.0
24.21	74.08	103.4	39.59	81.36	217.7
27.73	76.64	109.8	46.14	84.78	236.6
31.20	78.56	118.4	65.31	89.03	283.0
31.13	79.04	119.1	73.84	91.96	306.4
33.76	80.23	122.4	81.19	94.16	324.1
37.94	82.52	132.0	87.92	96.64	348.4
41.67	83.38	138.2	94.16	97.87	373.5
44.00	85.00	142.7	96.89	98.50	391.1
51.25	88.04	155.3	100.00	100.00	404.6
57.90	89.26	167.4			
56.00	88.00	161.5			
64.30	90.50	175.4			
68.48	-	184.3			
72.17	91.74	188.2			
79.96	93.10	202.5			
80.19	93.36	206.4			
88.30	97.34	223.1			
95.76	98.64	244.3			
100.00	100.00	259.8			

Bredig and Bayer, 1927

% L	% V	b.t.	% L	% V	b.t.
100	100	64.71	34.94	76.64	80.2
92.50	95.31	66.9	34.38	78.12	79.0
85.62	93.86	68.0	31.87	74.96	81.6
79.44	90.93	70.0	28.33	70.83	82.3
72.21	88.89	71.3	26.34	69.22	83.2
66.65	87.52	72.7	21.21	68.09	85.0
60.42	86.00	73.8	20.36	62.41	86.6
49.05	82.82	76.2	15.36	57.81	88.9
47.05	79.96	76.7	12.86	54.25	90.3
42.17	79.04	77.8	9.07	41.28	92.9
41.11	78.88	78.0			

Ferguson and Tunnell, 1929

% L	% V	p	% L	% V	p
		39.90°			
0	0	55.0	40	79.6	136.6
5	30.0	65.2	50	84.0	153.8
10	45.3	77.0	60	87.5	170.0
15	55.7	88.2	70	90.7	187.6
20	63.9	97.7	80	94.0	208.0
25	69.8	108.5	90	97.1	231.0
30	73.7	118.5	100	100.0	260.5
35	77.0	128.0			

Cornell and Montonna, 1933

wt% L	mol% L	wt% V	mol% V
	20°		
1.3	0.7	9.5	5.6
3.0	1.7	18.5	11.3
5.06	2.9	27.8	17.8
7.0	4.1	35.0	23.3
10.2	6.0	44.0	30.7
15.0	8.0	53.5	39.3
15.1	8.1	53.1	38.9
20.2	12.4	61.5	47.3
22.4	14.0	63.8	49.8
25.1	15.9	66.8	53.0
30.2	19.6	70.5	57.3
35.1	23.3	73.8	61.3
39.6	26.9	76.3	64.4
49.3	35.4	81.0	70.5
49.55	35.7	81.0	70.5
49.7	45.2	81.1	70.6
59.5	45.7	84.6	75.5
60.0	56.6	84.7	75.6
69.9	67.7	88.4	81.0
78.9	71.0	91.6	86.0
81.3	82.5	92.5	87.4
89.4	84.1	95.7	92.5
90.4	91.3	96.4	93.8
94.9	91.6	98.1	96.6

Uchida and Kato, 1934

% L	% V	b.t.	% L	% V	b.t.
0.28	1.53	99.42	43.71	75.16	73.00
2.40	16.43	95.52	48.14	77.26	72.46
3.56	21.81	93.76	49.33	77.32	72.27
4.27	25.05	92.97	52.35	78.50	71.41
6.16	30.68	90.36	61.95	83.28	69.96
9.27	39.36	87.61	67.35	85.72	69.35
9.50	40.95	87.08	74.79	89.33	68.23
12.18	47.52	84.33	81.72	92.00	67.10
12.86	49.24	83.82	85.78	94.29	66.23
16.62	53.33	81.95	85.94	94.18	66.33
10.86	58.05	79.45	89.06	95.35	65.99
24.91	61.90	78.17	93.41	97.35	65.38
28.41	65.30	76.24	93.71	97.47	65.23
36.73	71.21	74.58	98.69	99.56	64.73
41.64	74.10	73.05			

Othmer and Benenati, 1945

% L	% V	b.t.	% L	% V	b.t.
760 mm			500 mm		
4.6	26.7	92.7	2.5	16.3	85.0
9.4	40.2	88.1	5.5	31.0	80.2
15.7	53.3	84.0	11.4	48.4	75.4
21.7	60.2	80.8	21.2	62.2	70.0
32.1	68.0	77.4	32.5	69.6	66.5
42.5	74.5	74.8	46.3	78.2	63.1
53.4	79.1	72.4	52.3	80.4	62.0
63.2	82.9	70.5	61.4	84.5	59.7
72.7	88.3	68.7	70.9	88.7	58.7
81.7	92.0	67.3	77.2	91.3	57.7
89.1	95.6	66.1	88.0	95.8	56.0
350 mm			200 mm		
3.3	21.0	74.7	1.3	9.5	64.8
5.1	30.1	72.6	2.5	17.0	63.1
10.6	47.8	67.6	6.4	36.3	59.2
17.9	60.0	63.2	15.6	59.0	52.0
25.6	67.1	59.6	27.4	69.6	47.3
33.9	72.6	57.3	42.8	78.6	43.3
44.5	78.6	55.0	54.3	84.8	40.9
52.3	81.4	53.2	62.5	87.2	39.5
62.4	86.2	51.3	72.2	90.5	38.1
74.9	91.5	49.0	79.5	93.7	37.1
87.4	95.9	47.4	88.5	96.6	35.8

Othmer and Morley, 1946

% L	% V	% L	% V	% L	% V
2327 mm		5171 mm		7757 mm	
13.7	42.7	10.2	27.8	17.1	35.0
28.5	65.1	32.3	61.4	30.9	53.8
60.8	83.3	49.8	75.9	55.0	77.1
81.4	91.5	71.9	86.7	77.8	88.8
92.8	96.7	84.2	92.1		

Andreev and Zirlin, 1954

% L	% V	% L	% V
at b.t.			
300 mm			
0.18	1.66	32.25	74.20
1.00	8.95	50.00	83.00
5.00	29.60	80.00	92.56
15.00	55.10		

Green and Vener, 1955

wt% L	wt% V	b.t.	mol% L	mol% V	b.t.
0	0	100	0	0	100
5	26.9	95.3	5	27.8	92.4
10	44.6	91.7	10	42.5	87.7
20	61.7	86.0	20	60.2	81.7
30	72.0	81.8	30	69.2	78.0
40	78.5	78.8	40	75.2	75.4
50	82.9	76.4	50	79.8	73.2
60	86.2	74.2	60	83.8	71.2
70	89.4	71.8	70	87.8	69.4
80	92.4	69.5	80	91.5	67.7
90	95.9	67.0	90	96.0	66.0
100	100	64.6	100	100	64.6

Othmer, Friedland and Schiebel, (unpublished)

mol% L	mol% V	b.t.	mol% L	mol% V	b.t.
760 mm					
0	0	100	55.50	79.50	71.0
14.50	47.00	82.6	71.30	87.20	68.5
20.50	54.50	79.6	88.50	95.10	65.9
26.00	60.00	77.2	100	100	64.6
40.00	70.50	73.8			

Konowalow, 1884

t	p	t	p	t	p
0%		24.54%		49.26%	
16.5	13.7	17.25	30.15	17.0	44.5
26.4	25.4	29.9	62.6	29.9	90.6
40.4	56.5	43.2	126.2	43.3	177.3
50.25	92.9	53.6	207.25	53.5	284.0
59.2	142.8	64.9	345.7	65.5	479.9
70.7	239.8	84.25	750.8	76.7	747.6
80.45	359.4				
90.0	523.4				
91.25	549.9				
63.6%		72.3%		100%	
12.55	39.8	18.65	63.7	15.0	72.4
29.75	104.2	29.25	112.8	29.3	153.4
43.7	206.2	43.2	224.6	43.0	292.4
54.0	330.2	53.5	357.8	43.15	295.0
65.7	543.45	65.5	591.7	53.9	470.3
		71.15	747.7	65.4	756.6

Wrewsky, 1900

t	p	t	p
24.3%			
18.4	32.9	65.8	363.8
29.9	64	65.9	365.8
43.2	129	73.5	502.4
53.6	212	84.2	757.3

Butler, Thomson and Maclennan, 1933

mol%	%	p_2	p_1
25°			
2.02	23.0	3.85	22.9
4.04	38.0	7.67	22.3
6.20	48.5	11.7	22.2
7.91	55.8	15.1	21.2
11.45	64.4	21.5	21.1
20.17	76.6	35.8	19.5
39.73	87.0	59.6	15.8
65.79	93.5	85.7	10.5
81.37	97.2	104.6	5.26
100.00	100.0	126.6	0.0

Dulitzkaya, 1945

mol%	p	p_2	p_1
25°			
0.0	23.7	0	23.7
8.73	37.5	15.9	21.6
19.00	53.0	32.6	20.4
34.17	69.8	51.3	18.5
49.43	82.3	65.3	17.0
69.19	98.5	86.9	11.6
84.92	112.0	105.1	6.9
100.00	124.0	124.0	0
50°			
0.0	92.5	0	92.5
8.73	143.0	54.1	88.9
19.00	196.5	115.6	80.9
34.17	244.5	173.0	71.5
49.43	286.0	223.3	62.7
69.19	333.0	288.2	44.8
84.92	373.0	348.7	24.3
100.00	406.0	406.0	0
62.5°			
0.0	167.5	0	167.5
8.73	253.0	92.9	160.1
19.00	342.5	192.8	149.7
34.17	422.5	295.2	127.3
49.43	488.0	376.0	112.0
69.19	565.0	488.1	76.9
84.92	628.0	585.6	42.4
100.00	688.0	688.0	0

Doroshevski and Polyanski, 1910 and Bakowski, 1931

%	b.t. 700 mm	b.t. 760 mm	b.t. 800 mm
0	97.72	100.00	101.44
10	89.51	91.72	93.14
20	83.97	86.16	87.57
30	80.00	82.17	83.56
40	76.97	79.10	80.48
50	74.44	76.54	77.91
60	72.17	74.29	75.65
70	69.98	72.08	73.44
80	67.77	69.87	71.22
90	65.32	67.40	68.75
100	62.53	64.57	65.92

Aldrich and Querfeld, 1931

vol%	b.t.	vol%	b.t.
760 mm			
10	92.8	60	75.9
20	87.8	70	73.7
30	84.0	80	71.3
40	80.9	90	68.7
50	78.3	100	64.6

Jänecke, 1933

%	b.t.	%	b.t.
	760 mm		
8.2	93	54.6	76
16.4	88	65	73
34.7	81	76	70

Griswold and Buford, 1949

mol%	b.t.	mol%	b.t.
6.9	91.1	39.6	76.8
11.7	87.8	47.9	74.5
17.4	83.9	68.0	70.5
24.4	-	83.6	67.8
		100.0	64.7

Silgardo and Storrow, 1950

mol%	b.t.	mol%	b.t.
0.0	100	69.0	76.7
15.0	96.4	85.0	70.1
36.5	89.7	98.0	65.3
52.5	83.9	100.0	64.6

Novella and Tarraso, 1952

mol%		b.t.
L	V	
3.8	21.1	94.2
5.8	28.1	91.8
8.8	39.3	88.3
12.3	46.2	86.3
24.8	62.3	79.5
32.6	68.2	77.0
32.8	66.2	77.2
47.9	76.9	73.4
61.9	83.8	70.6
69.9	86.9	69.4
79.3	91.1	67.8
83.2	92.9	67.1
89.3	95.6	66.1
93.7	97.3	66.0
96.6	98.8	65.1
98.9	99.7	64.9
100.0	100.0	65.0

Abegg, 1894

N	f.t.
1.007	-1.95
2.015	-4.045
3.022	-6.395
4.030	-9.07
5.037	-12.055

Jones, 1904; Jones and Getman, 1904

M	f.t.	M	f.t.
0.5	-0.935	6.0	-15.000
1.0	-1.898	7.0	-19.000
3.0	-6.440	8.0	-23.500
4.0	-9.130	9.0	-28.500
5.0	-11.500	10.0	-33.500

Baume and Borowski, 1911

mol%	f.t.	mol%	f.t.
100	-95.7	44.87	-71.5
84.05	-113.5	41.79	-64.7
73.21	-128.7	38.44	-59.1
64.26	vitreous	36.20	-54.2
55.57	-100.8	33.81	-50.2
50.91	-87.5	30.33	-44.0
47.81	-78.1	27.24	-38.7

Pushin and Glagoleva, 1922-31

mol%	f.t.	E	min.
10	-10.5	-102	-
20	-30.2	-100.5	0.1
33.3	-59	-102	-
40	-65	-100.5	0.4
44	-78.5	"	-
50	-83.5	"	0.7
54	-87.5	-101.5	1.0
60	-	-111	-
70	-	-101	1.2
72	-	-102	-
80	-	-107	1.3
85	-	-103.5	1.1
90	-	-100.5	0.6
95	-	-	0.8
100	-96	-	-
			-

Aldrich and Querfeld, 1931

%	f.t.	%	f.t.
10	-4.6	40	-30.2
20	-10.7	50	-43.0
30	-19.3	60	-57.3

Pickering, 1932

%	f.t.	%	f.t.
1.252	-0.73	32.231	-29.15
2.398	-1.41	34.687	-33.05
3.739	-2.30	37.284	-36.15
4.900	-2.98	39.394	-39.30
6.312	-3.90	42.171	-42.60
8.237	-5.44	45.027	-47.15
11.875	-7.83	48.046	-51.25
15.136	-10.54	50.101	-55.60
18.217	-13.13	52.601	-59.00
21.228	-16.10	54.862	-63.75
24.074	-19.46	57.112	-67.50
26.722	-21.80	59.843	-73.25
29.585	-25.35	62.747	-80.00

Benjamin, 1932

mol%	f.t.	E
80.0	-116.7	-
87.2	-110.2	-128.5
91.9	-106.0	-129.2
100.0	-98.0	-

Ewert, 1937

mol%	f.t.	E	mol%	f.t.
36.4	-58.2	-104.3	63.0	-108.6
51.0	-90.1	-104.3	65.4	-105.6
53.0	-95.1	-104.5	69.4	-116.2
59.8	-108.6	-	75.2	-121.8
62.2	-105.3	-	100.0	-102.5
(1+1)				

Ross, 1954

%	f.t.	%	f.t.
10	-6.5	50	-55.4
20	-15.0	60	-75.0
30	-26.0	64	-84.6
40	-39.7		

Tammann and Pillsburg, 1928

mol%	velocity of cryst.	t
36.0	3.57	-66 - -68
36.6	3.16	-66 - -69
37.7	2.90	-68 - -70
38.7	2.32	-65.5--68.5
41.4	1.67	-65 - -68

Properties of phases

Traube, 1885

%	d	%	d
	15°		
0	0.9991	15.25	0.9751
1.96	.9955	16.67	.9731
3.85	.9922	23.08	.9645
5.66	.9892	28.57	.9568
7.41	.9865	33.33	.9497
9.09	.9840	37.50	.9434
10.71	.9816	44.44	.9311
12.28	.9794	61.54	.8968
13.79	.9773	100.00	.8004

Dittmar and Fawsitt, 1887

%	d 0°	d 15.56°	%	d 0°	d 15.56°
0	0.99987	0.99907	51	0.92691	0.91661
1	.99806	.99729	52	.92507	.91465
2	.99631	.99554	53	.92320	.91267
3	.99462	.99382	54	.92130	.91066
4	.99299	.99214	55	.91938	.90863
5	.99142	.99048	56	:91742	.90657
6	.98990	.98893	57	.91544	.90450
7	.98843	.98726	58	.91343	.90239
8	.98701	.98569	59	.91139	.90026
9	.98563	.98414	60	.90917	.89798
10	.98429	.98262	61	.90706	.89580
11	.98299	.98111	62	.90492	.89358
12	.98171	.97962	63	.90276	.89133
13	.98048	.97814	64	.90056	.88905
14	.97926	.97668	65	.89835	.88676
15	.97806	.97523	66	.89611	.88443
16	:97689	.97379	67	.89384	.88208
17	.97573	.97235	68	.89154	.87970
18	.97459	.97093	69	.88922	.87714
19	.97346	.96950	70	.88687	.87487
20	.97233	.96808	71	.88470	.87262
21	.97120	.96666	72	.88237	.87040
22	.97007	.96524	73	.88003	.86779
23	.96894	.96381	74	.87767	.86535
24	.96780	.96238	75	.87530	.86290
25	.96665	.96093	76	.87290	.86042
26	.96549	.95949	77	.87049	.85793
27	.96430	.95802	78	.86806	.85542
28	.96310	.95655	79	.86561	.85290
29	.96187	.95506	80	.86314	.85035
30	.96057	.95367	81	.86066	.84779
31	.95921	.95211	82	.85816	.84521
32	.95783	.95053	83	.85564	.84262
33	.95643	.94894	84	.85310	.84001
34	.95500	.94732	85	.85055	.83738
35	.95354	.94567	86	.84798	.83472
36	.95204	.94399	87	.84539	.83207
37	.95051	.94228	88	.84278	.82938
38	.94895	.94055	89	.84015	.82668
39	.94734	.93877	90	.83751	.82396
40	.94571	.93697	91	.83485	.82123
41	.94400	.93510	92	.83218	.81849
42	.94239	.93335	93	.82948	.81572
43	.94076	.93155	94	.82677	.81293
44	.93911	.92975	95	.82404	.81013
45	.93744	.92793	96	.82129	.80731
46	.93575	.92610	97	.81853	.80448
47	.93403	.92424	98	.81576	.80164
48	.93229	.92237	99	.81295	.79376
49	.93052	.92047	100	.81015	.78589
50	.92873	.91855			

%	d		
	0°	9.7°	19.7°
0	0.99987	0.99975	0.99829
5.008	.99141	.99118	.98961
10.018	.98422	.98342	.98154
20.032	.97246	.97000	.96657
30.023	.96039	.95611	.95158
40.028	.94585	.94045	.93467
50.022	.92862	.92230	.91573
60.020	.90895	.90195	.89475
70.063	.88678	.87945	.87158
79.959	.86354	.85548	.84724
89.990	.83746	.82900	.82044
95.062	.82382	.81530	.80630
100.000	.81018	.80132	.79202

Drude, 1897

%	d	%	d
	15.5°		
0	0.9991	56.0	0.9065
5.7	.9893	60.5	.8970
11.0	.9815	65.2	.8863
15.0	.9753	69.8	.8751
19.5	.9689	74.6	.8637
25.0	.9595	78.4	.8545
31.4	.9514	80.1	.8501
35.0	.9457	84.8	.8378
39.7	.9376	89.9	.8243
45.2	.9275	94.6	.8111
45.8	.9246	100.0	.7959
51.1	.9163		

Jones, 1904; Jones and Getman, 1904

M	d	M	d
	0°		
0	0.999868	5.0	0.970620
0.5	.995300	6.0	.964052
1.0	.992284	7.0	.960780
2.0	.988128	8.0	.955864
3.0	.980444	9.0	.949904
4.0	.975092	10.0	.944200

Dunstan and Thole, 1909 and Dunstan, 1904 and 1905

%	d		
	20°	25°	30°
0.00	0.9983	0.9972	0.9958
19.74	.9671	.9650	.9628
37.82	.9384	.9355	.9325
58.61	.8977	.8940	.8901
79.64	.8481	.8435	.8391
100.00	.7923	.7878	.7835

Getman, 1906

t	d				
	10%	20%	30%	40%	50%
10	0.9863	0.9768	0.9672	0.9534	0.9400
15	.9857	.9751	.9652	.9501	.9372
20	.9844	.9737	.9619	.9490	.9344
25	.9833	.9723	.9585	.9466	.9301
30	.9822	.9720	.9570	.9443	.9270
35	.9811	.9716	.9556	.9420	.9238
40	.9800	.9708	.9541	.9397	.9196
63	.9714	.9569	.9399	.9226	.9049
	60%	70%	80%	90%	
10	0.9191	0.9015	0.8735	0.8463	
15	.9160	.8976	.8704	.8419	
20	.9129	.8937	.8671	.8375	
25	.9099	.8898	.8643	.8331	
30	.9063	.8857	.8608	.9295	
35	.9026	.8816	.8573	.8240	
40	.8990	.8784	.8511	.8196	
63	.8808	.8619	.8308	.7979	

Chéneveau, 1907

%	d
20°	
0	0.9982
23.36	.9697
100	.8314

Getman and Wilson, 1908

%	d	%	d	%	d
		20°			
0	0.99823	40.94	0.93295	72.90	0.86321
7.72	.98282	41.80	.93022	86.81	.82979
15.60	.97129	56.40	.90142	94.34	.80964
37.70	.93939	65.30	.88155	100.00	.79359

Doroshevski, 1910

%	d	%	d	%	d
		15°			
0.00	0.99913	24.98	0.96111	69.99	0.87511
5.00	.99030	30.02	.95361	80.00	.85648
10.01	.98238	40.00	.93720	90.01	.82393
15.01	.97518	49.98	.91856	100.00	.79577
20.00	.96816	60.03	.89774		

Thevenet, 1910

%	d	%	d	%	d
		25°			
0	0.9971	29.86	0.9496	68.386	0.8733
5.21	.9877	38.40	.9351	78.163	.8495
10.10	.9800	50.675	.9119	87.606	.8250
18.63	.9670	61.722	.8883	100	.7891

Klason and Norlin, 1907

%	d	%	d
	15°		
100	0.7957	74.09	0.8653
99.82	.7963	73.69	.8663
99.47	.7973	73.29	.8673
99.11	.7983	72.89	.8683
98.75	.7993	72.48	.8693
98.39	.8003	72.07	.8703
98.03	.8013	71.65	.8713
97.67	.8023	71.23	.8723
97.31	.8033	70.81	.8733
96.96	.8043	70.38	.8743
96.60	.8053	69.95	.8753
96.25	.8063	69.53	.8763
95.89	.8073	69.10	.8773
95.54	.8083	68.68	.8783
95.18	.8093	68.25	.8793
94.82	.8103	67.83	.8803
94.46	.8113	67.40	.8813
94.10	.8123	66.97	.8823
93.74	.8133	66.53	.8833
93.39	.8143	66.09	.8843
93.03	.8153	65.65	.8853
92.68	.8163	65.20	.8863
92.32	.8173	64.75	.8873
91.96	.8183	64.31	.8883
91.60	.8193	63.86	.8893
91.24	.8203	63.42	.8903
90.88	.8213	62.98	.8913
90.52	.8223	62.54	.8923
90.16	.8233	62.09	.8933
89.80	.8243	61.65	.8943
89.43	.8253	61.20	.8953
89.07	.8263	60.75	.8963
88.70	.8273	60.29	.8973
88.34	.8283	59.83	.8983
87.97	.8293	59.36	.8993
87.61	.8303	58.90	.9003
87.24	.8313	58.43	.9013
86.88	.8323	57.96	.9023
86.52	.8333	57.49	.9033
86.16	.8343	57.01	.9043
85.79	.8353	56.53	.9053
85.42	.8363	56.05	.9063
85.04	.8373	55.58	.9073
84.67	.8383	55.11	.9083
84.29	.8393	54.64	.9093
83.91	.8403	54.18	.9103
83.53	.8413	53.72	.9113
83.15	.8423	53.25	.9123
82.77	.8433	52.79	.9133
82.39	.8443	52.31	.9143
82.01	.8453	51.83	.9153
81.63	.8463	51.34	.9163
81.25	.8473	50.85	.9173
80.86	.8483	50.35	.9183
80.47	.8493	49.84	.9193
80.08	.8503	49.33	.9203
79.69	.8513	48.81	.9213
79.30	.8523	48.28	.9223
78.91	.8533	47.74	.9233
78.51	.8543	47.20	.9243
78.11	.8553	46.66	.9253
77.71	.8563	46.12	.9263
77.30	.8573	45.57	.9272
76.90	.8583	45.03	.9282
76.50	.8593	44.49	.9292
76.10	.8603	43.96	.9302
75.70	.8613	43.42	.9312
75.30	.8623	42.88	.9322
74.89	.8633	42.34	.9332
74.49	.8643		
41.79	0.9342	20.79	0.9672
41.23	.9352	20.09	.9682
40.68	.9362	19.38	.9692
40.12	.9372	18.68	.9702
39.56	.9382	17.98	.9711
39.00	.9392	17.28	.9721
38.42	.9402	16.58	.9731
37.84	.9412	15.85	.9741
37.24	.9422	15.12	.9751
36.64	.9432	14.40	.9761
36.03	.9442	13.67	.9771
35.42	.9452	12.97	.9781
34.81	.9462	12.27	.9791
34.20	.9472	11.61	.9801
33.58	.9482	10.94	.9811
32.95	.9492	10.26	.9821
32.32	.9502	9.58	.9831
31.69	.9512	8.94	.9841
31.07	.9522	8.29	.9851
30.44	.9532	7.64	.9861
29.79	.9542	6.99	.9871
29.15	.9552	6.36	.9881
28.48	.9562	5.72	.9891
27.80	.9572	5.10	.9901
27.12	.9582	4.47	.9911
26.44	.9592	3.89	.9921
25.73	.9602	3.30	.9931
25.02	.9612	2.72	.9941
24.31	.9622	2.14	.9951
23.59	.9632	1.62	.9961
22.89	.9642	1.10	.9971
22.19	.9652	0.55	.9981
21.49	.9662	0	.9991

Doroshevski and Rozhdestvenski, 1910

%	d	%	d	%	d
		15°			
0	0.99913	34	0.94735	68	0.87971
1	.99727	35	.94571	69	.87740
2	.99543	36	.94405	70	.87508
3	.99370	37	.94237	71	.87271
4	.99189	38	.94067	72	.87033
5	.99030	39	.93894	73	.86792
6	.98864	40	.93720	74	.86547
7	.98701	41	.93543	75	.86301
8	.98547	42	.93366	76	.86051
9	.98394	43	.93185	77	.85801
10	.98241	44	.93001	78	.85551
11	.98094	45	.92815	79	.85300
12	.97948	46	.92627	80	.85048
13	.97802	47	.92436	81	.84794
14	.97660	48	.92243	82	.84536
15	.97518	49	.92048	83	.84275
16	.97377	50	.91852	84	.84009
17	.97237	51	.91653	85	.83742
18	.97096	52	.91451	86	.83475
19	.96956	53	.91249	87	.83207
20	.96815	54	.91046	88	.82938
21	.96674	55	.90859	89	.82668
22	.96532	56	.90631	90	.82396
23	.96392	57	.90421	91	.82124
24	.96251	58	.90201	92	.81850
25	.96108	59	.89997	93	.81568
26	.95963	60	.89781	94	.81285
27	.95818	61	.89563	95	.80999
28	.95669	62	.89341	96	.80714
29	.95518	63	.89117	97	.80428
30	.95366	64	.88890	98	.80143
31	.95213	65	.88661	99	.79859
32	.95056	66	.88433	100	.79577
33	.94896	67	.88203		

Atkins and Wallace, 1913

t	d	t	d
100%		64.14%	
0.0	0.81023	0.0	0.90030
12.05	.79914	13.2	.88505
45.30	.76876	24.2	.88241
		43.4	.86726

Mathews and Cook, 1914

t	d
36%	
0	0.9533
25	.9389
40	.9296
55	.9189
70	.9079

Herz, 1918

%	d	%	d
25°			
0	0.9969	64.00	0.8805
10.60	.9796	78.05	.8490
30.77	.9481	98.90	.8167
37.21	.9373	100.00	.7880
47.06	.9190		

Burrows, 1926 - 1927 ?

%	d
25°	
0	0.99707
14.69	.92258
31.801	.94571
87.531	.82220

Springer and Roth, 1930

%	d
25°	
0	1.0029
35.92	0.9386
40.71	.9320
46.19	.9155
100.00	.7921

Natta and Baccaredda, 1933

%	d	%	d
18°			
0	0.9986	60	0.8958
10	.9812	70	.8758
20	.9668	80	.8484
30	.9520	90	.8214
40	.9352	100	.7932
50	.9462		

Gibson, 1935

%	d	%	d
25°			
0.000	0.99707	40.342	0.93054
2.314	.99277	50.310	.91108
4.019	.98976	59.769	.89083
5.451	.98733	69.995	.86712
8.232	.98271	75.137	.85446
12.169	.97644	83.852	.83172
19.994	.96447	91.400	.81128
20.290	.96402	95.335	.80009
		100.000	.78656

Tomonari, 1936

%	d	%	d
20°			
100	0.7913	40	0.9346
80	.8469	20	.9671
60	.8944	0	.9982

Uchida and Kato, 1934

%	d 15°	d 20°	d 30°
0.00	0.9991	0.9982	0.9957
1.00	.9958	.9950	.9926
2.00	.9928	.9920	.9896
3.00	.9899	.9890	.9866
4.00	.9871	.9863	.9837
5.00	.9844	.9837	.9810
6.00	.9819	.9811	.9793
7.00	.9796	.9786	.9757
8.00	.9773	.9763	.9732
9.00	.9751	.9740	.9707
10.00	.9729	.9718	.9682
11.00	.9708	.9695	.9658
12.00	.9608	.9673	.9634
13.00	.9687	.9651	.9611
14.00	.9666	.9630	.9588
15.00	.9645	.9608	.9565
16.00	.9625	.9587	.9542
17.00	.9605	.9566	.9519
18.00	.9585	.9545	.9496
19.00	.9564	.9524	.9473
20.00	.9544	.9503	.9450
21.00	.9524	.9481	.9427
22.00	.9503	.9460	.9404
23.00	.9482	.9438	.9382
24.00	.9461	.9416	.9359
25.00	.9441	.9395	.9336
26.00	.9420	.9373	.9313
27.00	.9399	.9351	.9290
28.00	.9378	.9328	.9267
29.00	.9357	.9306	.9244
30.00	.9336	.9285	.9221
31.00	.9314	.9263	.9199
32.00	.9293	.9241	.9176
33.00	.9272	.9219	.9153
34.00	.9250	.9198	.9131
35.00	.9229	.9176	.9108
36.00	.9208	.9154	.9086
37.00	.9186	.9132	.9063
38.00	.9165	.9110	.9041
39.00	.9143	.9089	.9018
40.00	.9121	.9067	.8996
41.00	.9100	.9046	.8974
42.00	.9079	.9024	.8952
43.00	.9058	.9003	.8930
44.00	.9037	.8982	.8908
45.00	.9017	.8961	.8886
46.00	.8996	.8940	.8864
47.00	.8975	.8919	.8843
48.00	.8954	.8898	.8822
49.00	.8933	.8877	.8800
50.00	.8913	.8856	.8779
51.00	.8872	.8835	.8757
52.00	.8851	.8814	.8736
53.00	.8830	.8794	.8715
54.00	.8810	.8773	.8694
55.00	.8789	.8753	.8673
56.00	.8769	.8732	.8652
57.00	.8749	.8712	.8632
58.00	.8729	.8692	.8612
59.00	.8709	.8671	.8592
60.00	.8689	.8651	.8572
61.00	.8670	.8631	.8552
62.00	.8650	.8611	.8532
63.00	.8630	.8591	.8512
64.00	.8611	.8571	.8492
65.00	.8591	.8551	.8472
66.00	.8571	.8531	.8452
67.00	.8551	.8491	.8432
68.00	.8532	.8471	.8413
69.00	.8513	.8451	.8394
70.00	.8493	.8432	.8375
71.00	.8474	.8413	.8355
72.00	.8456	.8394	.8336
73.00	.8437	.8374	.8316
74.00	.8418	.8355	.8296
75.00	.8399	.8336	.8276
76.00	.8381	.8317	.8257
77.00	.8362	.8298	.8237
78.00	.8344	.8280	.8218
79.00	.8325	.8262	.8198
80.00	.8307	.8245	.8179
81.00	.8289	.8227	.8161
82.00	.8271	.8209	.8142
83.00	.8253	.8191	.8123
84.00	.8235	.8173	.8105
85.00	.8217	.8155	.8087
86.00	.8199	.8138	.8068
87.00	.8181	.8120	.8050
88.00	.8164	.8102	.8032
89.00	.8146	.8084	.8014
90.00	.8128	.8066	.7996
91.00	.8111	.8049	.7979
92.00	.8093	.8031	.7962
93.00	.8078	.8014	.7944
94.00	.8059	.7997	.7927
95.00	.8043	.7980	.7910
96.00	.8026	.7964	.7893
97.00	.8009	.7947	.7876
98.00	.7993	-	-
99.00	.7977	.7913	.7858
100.00	.7961	.7915	.7841

Harms, 1938

mol%	d	mol%	d
	15°		
0	0.999126	43.716	0.90210
1.135	.99543	55.593	.87739
1.710	.99310	64.042	.86051
3.466	.98864	79.009	.83207
5.882	.98241	89.808	.81285
8.388	.97660	94.788	.801128
12.328	.96814	96.499	.80143
18.681	.95518	98.236	.79859
25.635	.94067	100	.79578
34.175	.92242		

Pesce and Evdokimoff, 1940

%	d	%	d
	25°		
0	0.99707	56.668	0.89729
21.054	.96267	70.273	.86611
31.796	.94554	84.212	.83084
44.014	.92331	100	.78658

Griswold and Buford, 1949

mol%	d	mol%	d
	25°		
6.9	0.97867	39.6	0.90651
11.7	.96696	47.9	.88684
17.4	.95334	68.0	.84546
24.4	.93830	83.6	.81465
		100.0	.78700

Jacobson, 1951

vol%	d	vol%	d
	20°		
0	0.9982	59.1	0.9064
9.8	.9847	69.2	.8838
19.4	.9718	79.0	.8588
31.5	.9554	89.7	.8277
39.0	.9438	100.0	.7949
48.8	.9271		

Clifford and Campbell, 1951

mol%	d	mol%	d
	25°		
0.000	0.99707	51.984	0.87733
4.998	.98225	58.901	.86306
13.479	.96202	78.902	.82386
23.820	.93912	86.674	.80968
37.528	.90852	100.000	.78687

Carr and Ridder, 1951

%	d	%	d
	25°		
10.03	0.98010	50.35	0.91149
10.24	.97998	60.12	.89070
19.69	.96537	64.01	.88160
19.82	.96514	73.93	.85792
30.16	.94890	78.29	.84694
30.49	.94827	80.62	.84100
39.33	.93284	87.88	.82156
40.46	.93081	90.85	.81330
50.12	.91186	100.00	.78674
	30°		
10.04	0.97817	60.06	0.88642
20.03	.96219	70.11	.86289
29.98	.94601	80.02	.83783
39.99	.92807	89.98	.81083
50.12	.90830	100.00	.78190
	40°		
10.04	0.97411	60.06	0.87869
20.03	.95725	70.11	.85465
29.98	.94043	80.02	.82940
39.99	.92130	89.98	.80226
50.12	.90059	100.00	.77289

Griffiths, 1954

%	d	%	d
	25°		
1.23	0.99463	46.87	0.91827
3.23	.99101	50.12	.91199
6.49	.98562	57.09	.89787
10.26	.97876	61.45	.88706
16.33	.96877	65.27	.87863
18.47	.96604	68.43	.87141
22.19	.95982	73.76	.85809
26.28	.95318	79.74	.84431
31.06	.94519	83.26	.83596
37.26	.93443	90.83	.81462
39.63	.93158	96.72	.79646
42.14	.92701	100.00	.78654

Mc Hutchinson, 1954

N	maximum of density temperature
2	1.90
1	3.65
0.5	3.95
0.25	4.00
0.125	4.00

Gibson, 1935

%	π	%	π
		25°	
0.000	39.35	50.310	44.44
2.314	39.13	59.769	48.65
4.019	39.00	69.995	54.22
5.451	38.96	75.137	57.65
8.232	38.72	83.852	64.22
12.169	38.37	91.400	71.00
20.290	38.24	95.335	74.91
40.342	41.23	100.000	80.07

Jacobson, 1951

vol%	π	vol%	π
		20°	
0	45.34	59.1	49.93
9.8	43.77	69.2	56.31
19.4	42.47	79.0	65.20
31.5	42.09	89.7	78.91
39.0	43.04	100.0	98.64
48.8	45.52		

Viscosity and surface tension

Pagliani and Batelli, 1884

(Atti Torino)

%	η 0°	η 10°
0	1775	1309
15.10	2948	2018
26.23	3621	2485
30.77	3721	2527
37.21	3698	2548
47.06	3563	2491
64.00	2735	2032
100	734	654

Pagliani and Batelli, 1884

(Instituto Tecnico di Torino)

%	η 0°	η 10°
0	1775	1309
15.10	2945	2013
26.23	3618	2481
30.77	3718	2523
37.21	3695	2544
47.06	3560	2487
64.00	2732	2027
100.00	723	640

Dunstan, 1904

25°

%	η	%	η
0	891.0	51.31	1540
6.83	1055	52.82	1490
10.07	1157	55.35	1475
21.47	1403	58.55	1427
35.92	1600	61.06	1370
37.85	1575	66.53	1282
40.71	1570	73.19	1167
46.19	1570	77.41	1105
49.56	1532	100.00	556.4

Varenne and Godefroy, 1904 (fig.)

12°

vol%	seconds of flow	vol%	seconds of flow
0	259	60	785
10	360	70	735
20	515	80	645
30	650	90	510
40	675	100	420
50	710		

Jones and Mc Master, 1906, Jones, 1904

%	η 0° (1st series)	η 25° (1st series)	η 0° (2nd series)	η 25° (2nd series)
0	1778	891	1778	891
25	3335	1409	3304	1312
50	3642	1611	3586	1477
75	2576	1283	2451	1196
100	818.5	565.9	903.2	608.4

Getman, 1906

t	η 0%	10%	20%	30%
10	1303	1617	1963	2180
15	1134	1446	1762	1959
20	1002	1253	1516	1680
25	891	1098	1316	1444
30	798	982	1145	1257
35	720	875	1009	1111
40	654	793	902	989
63	459	504	508	586

t	40%	50%	60%	70%
10	2340	2491	2140	1980
15	2058	2073	1949	1689
20	1770	1798	1681	1513
25	1502	1572	1461	1339
30	1329	1363	1269	1184
35	1157	1198	1154	1058
40	1003	1045	997	946
63	611	636	594	568

t	80%	90%	100%
10	1476	1061	686
15	1307	965	638
20	1192	874	591
25	1081	805	553
30	964	726	515
35	872	673	483
40	784	620	451
63	526	424	-

t	$\tau.10^5$ 0%	10%	20%	30%	40%	50%
15	34	34	40	44	76	84
20	26	39	49	56	57	55
25	26	31	40	47	53	45
30	19	23	34	37	35	44
35	16	21	27	29	32	31
40	13	17	21	24	31	30
63	11	12	17	17	17	17

t	60%	70%	80%	90%	100%
15	38	58	34	19	9
20	53	35	23	18	9
25	44	35	20	14	7
30	38	31	23	16	7
35	33	25	16	11	6
40	31	22	17	11	6
63	17	16	11	8	-

Herz and Anders, 1907 and Herz, 1918

%	η	%	η
	25°		
0	895	64.00	1314
10.60	1162	78.05	1060
30.77	1490	98.90	807
37.21	1585	100	560
47.06	1558		

Dunstan and Thole, 1909 and Dunstan, 1904 and 1905

%	η 20°	η 25°	η 30°
100.00	585.2	552.5	515.1
79.64	1115	1003	909.8
58.61	1593	1399	1249
37.82	1816	1567	1379
19.74	1587	1378	1198
0.00	1002	891	798

Bingham, White and al., 1913

t	η 0%	η 21.41%	η 47.36%	η 71.61%	η 100%
25	898.4	1423	1560	1190	550.0
35	720.6	1090	1200	957.8	476.4
45	599.8	864.2	953.2	785.4	420.2
55	507.9	702.7	774.6	653.4	371.0
65	436.8	585.6	-	-	-

Mathews and Cooke, 1914

t	η
	36%
0	3662
25	1584
40	1040
55	758.8
70	578.0

Jones, 1915

vol%	η 15°	η 25°	η 35°
0	-	890	-
25	1871	1359	1032
50	2100	1535	1169
75	1594	1235	978
100	-	560	-

Tower, 1916

%	η	%	η
	15°		
100	629.2	95.347	782
99.238	652	91.897	831
98.770	671	88.790	995
97.523	708	84.858	1111

Tammann and Pillsburg, 1928

%	η 30.0°	η 20.0°	η 10.0°	η 0.0°
0.0	800	1010	1310	1800
13.9	-	1430	1940	2850
28.4	1310	1760	2440	3630
25.9	1367	1830	2540	3670
37.9	1369	1840	2530	3680
39.8	1374	1840	2530	3660
43.7	1366	1820	2510	3560
49.8	1340	1790	2390	3360
60.3	1230	1590	2100	2850
78.2	950	1190	1490	1880
98.4	540	620	720	860

Springer and Roth, 1930

%	η (water 0°=1)
25°	
0	0.5552
35.92	.9216
40.71	.8929
46.19	.8856
100.00	.390

Lemonde, 1938

%	η	%	η
	15°		
0	1130	64	1800
0.6	1160	84	1230
12	1530	92.5	950
22	1870	99.5	640
46	2110	100	633

In vapour state .

Silgardo and Storrow, 1950 (fig.)

t	η	t	η	t	η
15.0 mol%		36.5 mol%		52.5 mol%	
82	12.28	77	11.87	88	12.36
88	12.35	82	11.98	93	12.46
93	12.44	88	12.15	99	12.61
99	12.57	93	12.38	110	13.05
104	12.79	99	12.58		
110	12.98	110	13.05		
69.0 mol%		85.0 mol%		98.0 mol%	
82	12.30	77	11.81	66	11.13
93	12.46	82	11.86	71	11.32
99	12.65	88	12.08	82	11.69
110	13.05	93	12.25	93	12.08
		104	12.64	104	12.43
		110	12.84	110	12.62

%	η 100°	η at dew point	%	η 100°	η at dew point
0.0	12.55	12.55	69.0	11.80	12.68
15.0	12.48	12.61	85.0	11.46	12.49
36.5	12.25	12.65	98.0	11.12	12.28
52.5	12.07	12.67	100.0	10.97	12.23

Carr and Riddick, 1951

%	η	%	η
25°			
0.0	893.7	50.00	1576.0
9.77	1172.4	59.95	1426.4
20.01	1418.6	69.97	1233.5
30.01	1581.6	80.03	1024.1
34.02	1624.3	89.97	788.5
37.73	1660.1	100.00	556.5
40.00	1671.3		

Traube, 1885

%	σ	%	σ
15°			
1.96	67.13	15.25	50.46
3.85	63.71	16.67	49.37
5.66	60.78	23.08	44.94
7.41	58.25	28.57	41.93
9.09	56.37	33.33	39.60
10.71	54.88	37.50	37.90
12.28	53.09	44.44	35.57
13.79	51.75	61.54	30.94
		100.00	22.87

Morgan and Neidle, 1913

%	σ	%	σ
30°			
0.000	71.030	39.98	34.936
1.011	68.120	50.00	31.371
2.500	64.845	60.00	29.371
4.997	60.294	70.00	27.209
9.994	53.661	75.00	26.173
15.00	48.817	80.03	25.154
20.00	44.894	90.01	23.100
25.00	41.809	100.00	21.037
29.98	39.071		

t	σ 25%	σ 50%	σ 75%	σ 100%	σ 0%
0	44.818	34.309	28.618	23.447	75.49
10	43.807	33.406	27.804	22.650	74.01
20	42.796	32.664	26.991	21.853	72.53
30	41.785	31.841	26.177	21.057	71.03

Bennett, 1929

%	σ	%	σ
20°			
0	111.2	44.3	57.5
3.2	99.3	54.4	52.8
6.4	93.0	65.0	48.8
11.5	85.2	76.1	45.1
16.6	78.2	88.9	41.3
25.4	69.9	100.0	37.5
34.6	62.8		

Valentiner and Hohls, 1938

t	σ	t	σ	t	σ	t	σ
0 vol%		5 vol%		7.5 vol%		10 vol%	
20	77.7	20	63.9	20	61.0	20	59.1
30	71.0			30	59.2	26	58.3
40	69.2			40	57.9	36	57.3
50	67.6			50	56.2	43	56.1
						50	55.0
25 vol%		50 vol%		60 vol%		80 vol%	
20	46.4	20	35.3	20	32.9	20	27.3
30	45.3	30	34.5	30	32.3	30	26.5
40	44.3	40	33.7	40	31.5	40	25.8
50	43.2	50	32.9	50	30.8	50	25.0
90 vol%		100 vol%					
20	25.3	18	22.8				
30	24.4	20	22.7				
40	23.5	22	22.5				
50	22.6	30	21.6				
		40	20.4				
		50	19.5				

Teitelbaum, Gortalova and Sidorova, 1951

mol%	σ					
	-10°	-5°	0°	+5°	+10°	+15°
0	-	-	75.70	74.96	74.27	73.51
0.9	-	72.16	71.31	70.78	70.16	69.40
2.3	-	67.41	66.87	66.03	65.72	64.88
4.7	62.51	61.82	61.13	60.51	59.67	59.14
10.0	54.15	52.61	52.80	52.32	51.65	51.17
16.1	46.71	46.42	45.81	45.27	44.81	44.43
31.0	38.67	38.24	37.75	37.33	36.97	36.50
51.2	31.60	31.11	30.75	30.40	29.84	29.41
100.0	25.40	25.03	24.44	23.91	23.50	23.05

mol%	20°	25°	30°	35°	40°	45°	50°
0	72.75	71.98	71.21	70.37	69.52	68.76	67.92
0.9	68.78	68.02	67.41	66.64	66.03	65.26	64.42
2.3	64.34	63.50	62.89	66.20	61.59	60.82	60.21
4.7	58.60	57.76	57.22	56.61	55.84	55.15	54.69
10.0	50.63	50.02	49.48	49.01	48.26	47.72	47.18
16.1	43.89	43.51	43.12	42.51	42.13	41.67	41.21
31.0	36.06	35.70	35.28	34.92	34.40	34.01	33.58
51.2	28.92	28.56	28.14	27.71	27.36	26.87	26.37
100.0	22.50	22.09	21.51	21.21	20.67	20.29	19.90

Laamanen, 1922

%	a^2	%	a^2
18°			
10	12.32	60	7.59
20	10.20	70	7.09
30	9.49	80	6.74
40	8.50	90	6.32
50	7.92	100	5.68

Lemonde, 1938

%	D	%	D
15°			
0.6	1.26	64	0.85
12	1.11	84	1.22
22	0.99	92.5	1.46
46	0.77	99.5	1.75

Tichacek, Kmak and Drickamer, 1956

mol%	D	mol%	D
40°			
4.7	+0.17	50.8	-0.54
10.0	+0.62	64.0	-0.93
22.8	-0.44	80.0	-0.46

Franke, 1932

%	Diffusion ratio (cm /day)	%	Diffusion ratio (cm /day)
20°			
0.78	1.04	7.03	0.895
1.56	0.827	7.82	.900
2.34	.795	8.59	.840
3.13	.865	9.38	.767
3.91	.895	10.15	.680
4.68	.917	10.93	.613
5.47	.920	11.71	.613
6.25	.910	12.49	.705

Jacobson, 1951

vol %	sound velocity (m/sec.)	vol%	sound velocity (m/sec.)
20°			
0	1486.5	59.1	1486.5
9.8	1523.3	69.2	1417.5
19.4	1556.6	79.0	1336.4
31.5	1576.9	89.7	1237.4
39.0	1569.1	100.0	1129.3
48.8	1539.3		

Optical and electrical properties .

Drude, 1897

%	n_D	%	n_D
17°			
0	1.3335	56.0	1.3434
5.7	.3346	60.5	.3429
11.0	.3358	65.2	.3424
15.0	.3371	69.8	.3417
19.5	.3386	74.6	.3404
26.0	.3401	78.4	.3394
31.4	.3415	80.1	.3389
35.0	.3422	84.8	.3372
39.7	.3430	89.9	.3350
45.2	.3434	94.6	.3327
46.8	.3435	100.0	.3304
51.1	.3436		

Vc

Leach and Lythgoe, 1905

%	n_D^*	%	n_D^*
	20°		
0	14.5	51	39.7
1	14.8	52	39.6
2	15.4	53	39.6
3	16.0	54	39.5
4	16.6	55	39.4
5	17.2	56	39.2
6	17.8	57	39.0
7	18.4	58	38.6
8	19.0	59	38.3
9	19.6	60	37.9
10	20.2	61	37.5
11	20.8	62	37.0
12	21.4	63	36.5
13	22.0	64	36.0
14	22.6	65	35.5
15	23.2	66	35.0
16	23.9	67	34.5
17	24.5	68	34.0
18	25.2	69	33.5
19	25.8	70	33.0
20	26.5	71	32.3
21	27.1	72	31.7
22	27.8	73	31.1
23	28.4	74	30.4
24	29.1	75	29.7
25	29.7	76	29.0
26	30.3	77	28.3
27	30.9	78	27.6
28	31.6	79	26.8
29	32.2	80	26.0
30	32.8	81	25.1
31	33.5	82	24.3
32	34.1	83	23.6
33	34.7	84	22.8
34	35.2	85	21.8
35	35.8	86	20.8
36	36.3	87	19.7
37	36.8	88	18.6
38	37.3	89	17.3
39	37.7	90	16.1
40	38.1	91	14.9
41	38.4	92	13.7
42	38.8	93	12.4
43	39.2	94	11.0
44	39.3	95	9.6
45	39.4	96	8.2
46	39.5	97	6.7
47	39.6	98	5.1
48	39.7	99	3.5
49	39.8	100	2.0
50	39.8		

* in degrees of Zeiss immersion refractometer.

Chéneveau, 1907

%	n_D
	20°
0	1.3330
23.36	.3400
100.00	.3407

Getman and Wilson, 1908

%	n_D	%	n_D
	20°		
0	1.33298	56.4	1.34221
7.72	.33505	65.3	.34106
15.60	.33727	72.9	.33903
37.70	.34147	86.81	.33348
40.94	.34229	94.34	.33123
41.80	.34227	100.00	.32887

Doroshevskii and Dvorzhanchik, 1910

%	n_D 15°	n_D 17.5°	$\tau \cdot 10^5$
0	1.33339	1.33320	0
2.00	.33384	.33362	9
5.00	.33453	.33429	9.8
7.04	.33504	.33480	9.6
10.04	.33584	.33559	10
12.00	.33644	.33616	11
15.01	.33730	.33702	12
20.00	.33879	.33844	14
24.98	.34022	.33980	16
30.02	.34138	.34091	19
35.02	.34235	.34180	22
40.00	.34308	.34248	24
45.03	.34359	.34294	26
49.98	.34378	.34308	28
54.99	.34365	.34290	29
60.03	.34327	.34250	31
64.99	.34272	.34192	32
69.99	.34169	.34094	34
75.01	.34067	.33980	35
80.00	.33925	.33825	36
85.01	.33749	.33657	37
90.01	.33545	.33450	38
95.00	.33309	.33212	39
100.00	.33057	.32857	40

Glazunov, 1914

mol %	n_D	mol %	n_D
	25°		
0	1.33232	54.68	1.33984
13.50	.33823	69.77	.33669
25.37	.34090	77.95	.33505
38.12	.34163	87.37	.33193
40.00	.34163	100.00	.32773
50.39	.34065		

Field, Fairn and Macoun, 1931

d	n_{5893} 15.56°	18°	19°
0.9370	1.34316	1.34252	1.34229
.9371	.34306	.34258	.34233
.9372	.34305	.34245	.34223
.9376	.34303	.34256	.34231
.9378	.34303	.34248	.34225
.9379	.34308	.34257	.34230
.9381	.34301	.34244	.34220
.9383	.34302	.34243	.34219
.9385	.34301	.34252	.34228
.9387	.34293	.34241	.34218
	20°	21°	22°
0.9370	1.34206	1.34181	1.34157
.9371	.34207	.34182	.34156
.9372	.34200	.34178	.34157
.9376	.34206	.34179	.34155
.9378	.34201	.34177	.34155
.9379	.34204	.34176	.34152
.9381	.34197	.34172	.34148
.9383	.34199	.34177	.34153
.9385	.34204	.34179	.34155
.9387	.34194	.34172	.34149

Franke, 1932

%	n_D	%	n_D
	20°		
0	1.3333	50	1.3420
25	.3385	75	.3395
32	.3412	100	.3292

Jänecke, 1933

%	n_D	%	n_D
	15.56°		
10	1.3357	60	1.3427
20	.3385	70	.3412
30	.3410	80	.3385
40	.3427	90	.3344
50	.3431	100	.3299

Natta and Baccaredda, 1933

%	n_D	%	n_D
	18°		
0	1.33307	60	1.34268
10	.33538	70	.34121
20	.33844	80	.33840
30	.34092	90	.33450
40	.34258	100	.32941
50	.34326		

Tomonari, 1936

%	n_D	%	n_D
	20°		
100	1.32911	40	1.34234
80	.33813	20	.33817
60	.34235	0	.33299

Pesce and Evdokimoff, 1940

%	n_{He}	%	n_{He}
	25°		
0	1.33255	56.668	1.34071
21.054	.33758	70.273	.33853
31.796	.33986	84.212	.33417
44.014	.34103	100	.32643

Griswold and Buford, 1949

mol%	n_D	mol%	n_D
	25°		
6.9	1.33512	39.6	1.34105
11.7	.33700	47.9	.34009
17.4	.33881	68.0	.33609
24.4	.34029	83.6	.33163
		100.0	.32657

Thwing, 1894

%	ε	%	ε
	15°		
0	75.50	50	57.14
5	73.24	55	52.51
10	72.30	60	50.00
15	70.73	65	46.76
20	69.20	70	45.16
25	67.94	75	44.11
30.8	67.94	78	44.62
35	64.14	80	40.98
37	61.50	85	38.05
40	60.22	90	36.30
45	59.41	95	34.05
47.5	60.22	99.7	34.05

Harrington, 1916

%	ε	%	ε
	18°		
0.0	78.73	75.9	45.31
17.4	71.11	84.0	40.96
33.1	64.17	100.0	33.78
48.0	57.44		

Drude, 1897

%	ε	%	ε
	17°		
0	81.7	56.0	55.1
5.7	79.1	60.5	52.0
11.0	76.4	65.2	50.1
15.0	74.5	69.8	47.6
19.5	72.3	74.6	46.0
26.0	69.4	78.4	44.0
31.4	66.6	80.1	42.8
35.0	65.0	84.8	40.6
39.7	62.5	89.9	38.2
45.2	60.3	94.6	36.1
46.8	59.1	100.0	33.2
51.1	57.7		

Salazar, 1924

%	ε	%	ε
	25°		
0.000	81.12	60.041	51.23
4.999	78.53	64.966	48.79
10.014	76.63	70.000	45.78
15.016	73.81	70.020	45.93
20.011	72.14	74.906	44.56
25.018	69.49	75.045	44.06
30.018	68.05	79.734	42.01
33.893	66.53	80.013	41.45
40.037	63.30	84.512	39.94
44.967	60.58	84.991	39.29
45.149	60.11	89.907	39.10
49.986	56.85	93.489	36.63
50.061	56.85 ?	95.097	35.04
50.501	57.29	99.166	33.55
54.954	54.03		

Åkerlöf, 1932

%	ε 20°	30°	40°	50°	60°
0	80.37	76.73	73.12	69.85	66.62
10	75.84	72.37	68.90	65.66	62.77
20	71.02	67.48	64.13	61.06	58.24
30	66.01	62.71	59.53	56.59	53.94
40	61.24	58.06	54.82	52.17	49.52
50	56.53	53.47	50.40	47.82	45.28
60	51.53	48.58	45.64	43.22	41.22
70	46.46	43.63	41.04	38.81	36.68
80	41.46	38.98	36.66	34.62	32.74
90	36.80	34.62	32.56	30.67	28.91
100	32.35	30.68	29.03	27.44	25.97

Martin and Brown, 1938

mol%	ε	mol%	ε
25°		39.9°	
81.37	36.8	90	31.33
65.79	41.6	80	33.75
39.79	53.1	70	36.57
20.20	63.9	60	40.00
11.50	69.9	50	44.13
7.90	72.5	40	48.80
6.20	73.8	30	53.70
2.00	77.0	20	59.35
0.00	78.5	10	65.95
		5	69.53
		0	73.15

Jones and Davies, 1939

%	ε 1	ε 2	ε 1	ε 2
	20.14°		24.89°	
0	80.290	80.320	78.480	78.500
4.95	78.146	78.215	76.313	76.401
9.99	76.009	76.142	74.230	74.329
19.87	71.783	71.880	69.994	70.091
29.96	67.300	67.332	65.581	65.618
39.86	62.681	62.721	61.025	61.071
49.96	57.861	57.856	56.283	56.287
59.83	53.247	53.270	51.760	51.815
69.82	48.584	48.586	47.200	47.211
79.61	44.049	44.056	42.745	42.760
90.71	38.649	38.677	37.493	37.520
94.89	36.484	36.492	35.404	35.419
100.00	33.580(20°)		32.610(25°)	

(two series) (at 20°) (at 25°)

Thevenet, 1910

%	$(\alpha)_{magn.}$	%	$(\alpha)_{magn.}$
	25°		
0	4.815	50.675	4.198
5.210	.694	61.722	4.043
10.104	.691	68.386	3.950
18.630	.583	78.153	.799
29.864	.459	87.606	.657
38.404	.369	100	.430

Radchenko and Shestakovskii, 1955 (fig.)

Dispersion by X-rays

sin a/l	I	sin a/l	I
	13°		
0%		20%	
0.10	8	0.10	35
.18	108	.14	98
.20	80	.20	65
.22	79	.23	63
.30	28	.30	30
.36	30	.36	31
.50	18	.55	21
.60	20	.63	23
.75	18	.75	19
30%		50%	
0.08	30	0.03	35
.10	46	.10	50
.14	114	.14	112
.19	74	.20	62
.21	75	.22	60
.30	40	.29	34
.37	40	.33	35
.48	30	.40	30
.60	29	.50	26
		.60	28
		.70	23
	100%		
0.08	62	0.30	39
.10	76	.40	28
.13	93	.50	23
.20	46	.60	22
.25	40	.75	17

a = angle of dispersion. I = relative intensity of dispersion. l =wave length

Heat constants.

Lecher, 1877

%	U	%	U
	at room t.		
0	1.000	36.62	0.918
12.32	.073	42.64	.879
20.42	.073	51.64	.826
25.60	.019	63.43	.781
27.90	0.957	91.14	.647
30.51	0.980	100.00	.622

Zetterman, 1881

%	U	%	U
	0°		
0	1	30	0.966
10	1.018	40	0.902
20	0.989	50	0.841

Bose, 1907

%	U		
	0.1 - 5.1°	21.4 - 20.3°	38.3 - 42.0°
0	1.006	0.999	0.999
5	.023	.998	.997
10	.019	.996	.993
15	0.999	.992	.987
20	.973	.988	.980
25	.947	.981	.971
30	.921	.972	.958
35	.894	.958	.940
40	.869	.928	.919
45	.844	.892	.898
50	.818	.861	.874
55	.793	.834	.848
60	.768	.807	.824
65	.744	.779	.800
70	.720	.750	.777
75	.696	.725	.751
80	.673	.699	.723
85	.649	.676	.698
90	.625	.653	.672
95	.600	.631	.644
100	.570	.607	.612

Doroshevskii, 1910

%	U	%	U
	18 - 100°		
0.00	1.0060	40.00	0.9542
5.00	.0085	49.98	.9162
10.01	.0114	60.03	.8689
15.01	.0065	69.99	.8287
20.00	.0021	80.00	.7744
24.98	.0001	90.01	.7200
30.02	0.9871	100.00	.6581

Next Page

Bose, 1907

%	Q mix 0°	19.69°	42.37°
	cal/mole mixture		
0	0.0	0.0	0.0
5	100.0	81.6	60.0
10	168.0	143.5	104.1
15	205.8	182.3	133.8
20	229.1	209.3	152.5
25	237.3	218.7	160.6
30	237.3	219.8	162.9
35	233.1	216.8	160.2
40	227.5	212.1	155.7
45	219.6	204.3	149.6
50	209.3	194.5	141.7
55	198.1	184.5	133.5
60	185.3	171.8	124.0
65	170.6	158.4	113.4
70	154.7	143.9	100.2
75	136.9	128.1	85.3
80	116.3	109.0	68.7
85	93.4	86.5	50.0
90	66.8	60.0	32.2
95	36.0	31.0	14.4
	cal/mole alcohol		
5	38	32	17
10	74	65	36
15	110	100	60
20	145	136	85
25	182	171	113
30	221	206	142
35	264	243	173
40	310	286	207
45	361	334	242
50	422	390	285
55	487	453	333
60	569	530	390
65	665	619	456
70	790	730	541
75	948	876	643
80	1138	1041	761
85	1374	1222	890
90	1650	1431	1040
95	1990	1634	1194
100	2060	1714	1297
	cal/mole water		
5	105	87	63
10	185	159	116
15	243	216	158
20	285	261	191
25	315	292	215
30	338	314	232
35	359	335	246
40	380	355	260
45	400	373	272
50	419	390	283
55	440	409	296
60	464	430	309
65	489	452	324
70	516	480	335
75	547	511	342
80	581	544	339
85	621	572	330
90	666	598	318
95	715	622	303
100	767	641	285

cal/ g mixture

8.56	5.33	4.42	3.20
16.49	8.57	7.36	5.38
23.88	10.26	9.12	6.68
30.77	10.96	10.03	7.34
37.21	12.73	11.80	8.69
43.26	10.65	9.89	7.31
48.91	10.18	9.50	6.98
54.23	9.65	9.01	6.60
59.25	9.05	8.43	6.15
63.99	8.26	7.79	5.66
68.48	7.70	7.16	5.19
72.72	7.03	6.51	4.68
76.75	6.31	5.84	4.18
80.58	5.56	5.17	3.61
84.21	4.80	4.48	3.00
87.67	3.97	3.72	2.33
90.97	3.11	2.86	1.65
94.12	2.18	1.95	1.04
97.12	1.14	0.994	0.484

Young and Fortey, 1902

mol%	t initial	final
60	21.7	29.55

Raikow, 1902

vol%	flashing point	vol%	flashing point
	720 mm		
7.5	65.25	60	22.75
10	58.75	70	20.28
20	44.25	80	16.75
30	36	90	13.25
40	30	100	9.50
50	26		

Water + Ethyl alcohol (C_2H_6O)

Heterogeneous equilibria .

Equilibrium L + V .

Dittmar and Stewart, 1873–6

%	b.t. V		b.t. L	
100	77.7		-	
99.87	78.59		-	
99.00	78.53		-	
98.20	78.49		-	
98.00	78.47		78.94	
96.86	78.45		78.94	-78.95
95.77	78.45		78.88	-78.92
95.19	78.40		78.78	-78.82
94.69	78.45		78.85	-78.95
93.44	78.52		-	
92.35	78.49		78.92	
91.07	78.55		79.00	-79.10
89.88	78.60		-	
88.61	78.65		78.75	-78.78
88.00	78.66		-	
83.79	78.91		-	
79.98	79.22		-	
73.96	79.70		-	
69.17	80.07		-	
64.27	80.40		-	
64.27	80.26		82.34	-82.74
59.95	80.66		81.79	
59.95	80.69		81.34	
54.96	80.79		82.19	-82.24
50.26	81.14		82.74	
44.97	81.59	- 81.69	82.74	
39.97	81.84	- 81.89	83.34	
35.00	82.44		83.39	
21.5	84.25	- 84.30	86.95	
15.35	86.00		89.46	
12.63	88.81		91.91	- 92.10
6.93	91.51	-92.31	95.21	- 95.31

Sorel, 1900

% L	V 760mm	V 825mm	% L	V 760mm	V 825mm
2	18.08	-	50	70.69	77.7
5	33.38	-	55	72.60	-
10	48.79	62	60	74.64	80.7
15	57.54	-	65	77.04	-
20	66.18	68.4	70	79.40	83.8
25	61.72	-	75	82.07	-
30	63.46	71.5	80	84.79	87.4
35	65.15	-	85	87.68	-
40	66.97	74.6	90	90.97	91.6
45	68.79	-	95	94.16	-
			100	100.00	100.0

Rayleigh, 1902

% L	% V	% L	% V
at b.t.			
1.970	17.50	66.06	79.76
3.982	31.59	77.39	84.14
6.010	39.79	82.21	86.22
9.880	51.45	85.94	88.49
25.860	68.03	92.41	92.84
45.620	74.12	95.55	95.45

Kablukov, Solomonov and Gabin, 1904

%	p	% L	% V
47.5°			
10.06	112.2	10.06	50.80
17.66	130.7	20.46	62.25
23.35	140.0	29.50	71.58
30.10	152.8	41.40	74.90
46.00	168.1	49.65	76.90

Sorel, 1900

%	p 30°	35°	40°	45°	50°	55°	60°
0.00	31	42	55	71.5	92	117.5	114.9
5.55	39	51	68	90	117.5	153	195.5
11.23	46	60	80	106	138	183	234
18.19	53	70	92	120	157	202	254
26.47	60	77	101	131	172	218	274
32.84	64	84	109	142	184	233	292
36.77	66	86	112	146	186	253	321
46.86	71	91	116	148	198	260	335
51.35	75	95	121	158	219	276	343
54.45	75.5	99	131	170	219.2	278	344
67.86	76.5	100.5	132.5	175.5	219.5	280	347
83.89	77	101	133	172	219.5	281.5	349
100.00	78	102	133.5	173	220	282	350

%	p 65°	70°	75°	80°	85°	90°	95°
0.00	187	233	289	354	433	525	634
5.55	245	302	368	452	552	662	780
11.23	289	354	432	525	627	742	885
18.19	312	384	473	573	693	836	-
26.47	328	418	514	623	752	900	-
32.84	361	446	550	658	786	-	-
36.77	391	476	576	680	793	-	-
46.86	394	481	593	712	840	-	-
51.35	412	495	598	725	850	-	-
54.45	419	502	618	745	890	-	-
67.86	429	522	627	752	909	-	-
83.89	438	539	650	798	929	-	-
100.00	441	525	652.5	812	960	-	-

Masing, 1908

% L	% V 760mm	400mm	220mm	40mm
33.36	71.85	72.56	73.39	75.26
52.14	75.91	76.38	76.87	78.18
73.50	83.00	-	-	84.13
85.66	88.00	88.26	88.53	87.06
88.26	89.81	-	-	90.70
90.98	91.68	91.89	92.03	92.39
93.83	94.04	-	-	94.57
96.82	96.73	-	-	97.05

Vrevskii, 1910

% L	V	p	p_2	p_1
		39.76°		
100.00	100.00	129.8	129.8	-
98.20	98.20	131.4	125.5	5.9
97.52	97.55	131.5	123.6	7.9
90.04	91.74	129.2	105.0	24.2
80.00	86.73	125.5	-	-
79.92	86.73	125.3	90.08	25.22
70.30	84.00	121.9	81.90	40.0
67.04	83.12	119.5	78.70	40.8
59.78	81.58	115.7	73.36	42.34
47.54	79.52	110.2	66.45	43.8
45.23	-	109.6	-	-
43.75	78.46	108.6	63.81	44.8
43.45	-	107.9	-	-
42.62	-	108.3	-	-
42.00	78.42	107.3	63.0	44.3
40.85	-	107.6	-	-
39.10	-	105.5	-	-
37.95	-	105.1	-	-
36.79	-	104.9	-	-
36.42	77.36	104.4	59.7	44.7
35.16	-	103.1	-	-
35.00	-	103.7	-	-
32.90	-	101.9	-	-
31.88	75.87	101.2	55.80	45.4
30.25	75.24	99.4	53.98	45.5
26.78	-	95.9	-	-
25.36	-	95.5	-	-
22.00	71.25	90.5	44.55	45.95
18.25	69.00	84.7	40.10	44.6
15.92	68.12	81.4	37.10	44.3
		(second series)		
100.00	100.00	129.8	129.8	0
99.40	99.30	130.0	127.7	2.3
99.13	99.09	131.1	128.1	3.0
98.80	98.77	131.1	127.0	4.1
98.47	98.37	130.3	125.0	5.3
98.20	98.20	131.4	125.5	5.9
97.52	97.55	131.5	123.6	7.9
97.41	97.45	131.3	123.1	8.2
97.14	97.21	130.9	121.9	9.0
97.07	97.10	130.3	121.1	9.2
96.93	97.03	130.3	120.8	9.5
96.37	96.53	130.9	119.9	11.0
96.10	96.23	131.6	119.6	12.0
90.04	91.74	129.2	105.0	24.2

97.41	97.45	131.3	123.1	8.2
97.14	97.21	130.9	121.9	9.0
97.07	97.10	130.3	121.1	9.2
96.93	97.03	130.3	120.8	9.5
96.10	96.23	131.6	119.6	12.0
		54.81°		
100.00	100.00	275.2	275.2	0
96.47	96.47	275.9	252.3	23.6
89.88	-	273.2	-	-
80.44	86.80	265.7	191.3	74.4
80.00	86.23	264.6	187.9	76.7
70.13	82.94	256.6	168.2	88.4
68.29	-	255.5	-	-
60.00	80.33	247.5	-	-
55.96	-	243.6	-	-
48.23	78.54	237.3	139.7	97.6
44.33	78.12	233.9	136.3	97.6
40.75	77.40	228.1	130.6	97.5
33.82	-	220.7	130.6	-
25.06	72.16	204.2	102.8	101.4
21.30	-	195.8	-	-
20.50	69.83	192.9	91.7	101.2
0	-	116.6	-	116.6
		(second series)		
100	100	275.2	275.2	0
99.71	99.71	276.3	274.3	2.0
99.13	99.13	275.9	269.8	6.1
98.70	98.71	276.7	267.7	9.0
97.75	97.72	277.0	261.4	15.6
97.51	97.45	276.3	258.9	17.4
97.14	97.10	274.6	255.1	19.5
97.00	97.03	276.3	256.2	20.1
96.90	96.80	275.7	-	-
96.70	96.66	275.3	253.0	22.3
96.47	96.47	275.9	252.3	23.6
96.35	96.37	276.6	252.3	24.3
96.20	96.27	275.4	250.6	24.8
		74.79°		
100.00	100.00	653.3	653.0	-
99.00	-	653.2	-	-
95.68	95.68	654.3	586.6	67.7
-	-	655.5	-	-
90.88	91.96	651.0	532.1	118.9
82.46	87.30	640.5	466.9	173.6
74.58	84.08	623.4	420.1	203.3
71.17	82.80	615.9	402.3	213.6
59.48	79.68	590.9	357.7	233.2
48.19	-	566.3	-	-
47.68	77.68	566.6	326.8	239.8
41.80	-	549.0	-	-
39.20	-	544.3	-	-
38.90	-	541.4	-	-
38.14	-	540.9	-	-
37.79	75.95	539.5	298.3	241.2
36.10	-	535.1	-	-
32.47	-	523.9	-	-
31.77	74.00	519.7	273.8	245.9
30.25	-	515.2	-	246.9
29.75	73.42	513.7	266.8	250.0
27.94	72.54	508.5	258.5	-
25.36	-	495.5	-	-
23.92	70.22	489.8	-	255.1
20.08	68.21	469.2	214.1	-
20.00	-	468.8	-	-
0.00	-	286.9	-	286.9

74.79° (second series)

100.00	100.00	653.0	653.0	-
99.43	99.40	653.0	643.1	9.9
99.33	-	652.8	-	-
99.00	-	653.2	-	-
98.80	98.64	652.3	630.1	22.2
98.48	98.32	-	-	-
97.93	97.65	654.0	616.1	37.9
95.92	95.82	654.0	588.4	65.6
95.46	95.50	655.7	585.7	70.0
94.57	94.64	652.8	570.3	82.5
90.88	91.96	651.0	532.1	118.9
97.31	97.20	653.3	608.5	44.82
96.83	96.73	653.1	601.1	51.99
96.63	96.57	655.0	600.5	54.50
95.82	95.79	656.6	590.3	66.31
95.68	95.68	654.3	586.6	67.72
95.50	95.53	655.7	585.7	70.03

Evans, 1916

b.t.	% L	% V	b.t.	% L	% V
		760 mm			
78.2	91.1	91.8	82.9	33.6	78.3
-	87.7	90.0	83.3	31.4	77.1
78.4	84.6	89.6	83.6	29.0	76.2
78.7	81.5	88.0	84.0	27.2	75.8
79.0	78.8	86.5	84.7	25.4	74.2
79.2	75.8	85.8	84.9	23.0	73.7
79.5	72.9	84.6	85.7	21.3	-
79.8	70.0	83.8	86.1	19.9	72.5
79.9	67.5	84.2	86.9	17.3	70.0
80.2	64.8	83.5	87.5	15.1	-
80.4	62.0	82.7	88.4	12.8	66.7
80.5	59.2	81.9	89.5	11.6	62.5
80.6	57.3	81.5	90.3	10.1	60.0
80.9	53.6	80.8	91.4	9.4	55.8
81.7	51.2	81.2	92.4	7.1	51.4
81.7	48.4	80.4	93.5	5.7	46.8
81.8	45.7	-	94.5	4.1	43.7
82.0	43.1	79.6	95.7	3.3	33.5
-	40.2	-	96.6	2.5	30.6
82.3	37.7	78.8	97.4	1.4	23.6
82.5	35.7	79.2	98.1	1.0	16.7
			99.9	0	0

(second series)

b.t.	% L	% V	b.t.	% L	% V
78.3	100	100	86.5	18	71
78.2	91	92	87.0	17	70
78.9	85	89	87.5	16	69
78.6	82	88	88.0	15	68
78.8	80	87	88.5	13	67
79.0	78	86	89.0	12	65
79.2	76	85	89.5	11	63
79.4	74	85	90.0	10	61
79.6	72	84	90.5	10	59
79.8	69	84	91.0	9	57
80.0	67	83	91.5	8	55
80.2	64	83	92.0	8	53
80.4	62	82	92.5	7	51
80.6	59	82	93.0	6	49
80.8	56	81	93.5	6	46
81.0	53	81	94.0	5	44
81.2	50	80	94.5	5	42
81.4	47	80	95.0	4	39
81.6	45	80	95.5	4	36
81.8	43	79	96.0	3	33
82.0	41	79	96.5	3	30
82.5	36	78	97.0	2	27
83.0	33	78	97.5	2	23
83.5	30	77	98.0	1	19
84.0	27	76	98.5	1	15
84.5	25	75	99.0	0	10
85.0	23	74	99.5	0	5
85.5	21	73	100	0	0
86.0	20	72			

Carroll, Rollefson and Mathews, 1925

% L	% V	% L	% V
	at b.t.		
0	0	60	79
10	54	70	80.5
20	68	80	84.5
30	75	90	90
40	77	100	100
50	78		

Dobson, 1925

% L	% V	p_1	p_2	p
		25°		
0	0	23.75	-	23.75
6.21	35.80	-	-	-
12.36	54.20	22.67	10.50	33.17
20.51	66.17	21.78	16.66	38.44
28.40	72.91	21.15	22.27	43.42
33.90	75.38	20.79	24.90	45.69
39.32	77.10	20.36	26.85	47.21
50.46	80.03	19.60	30.73	50.33
56.50	81.23	19.01	32.16	51.17
71.09	84.40	17.31	36.64	53.95
78.07	86.20	16.18	39.53	55.71
90.12	91.90	10.68	47.40	58.08
100	100	-	59.01	59.01

Grumbt, 1930

b.t.	% L	% V	b.t.	% L	% V
	3 atm.			5 atm.	
132.7	0.2	1.9	148.5	2.1	22.0
132.4	0.3	3.0	148.1	2.3	25.0
127.2	4.4	39.0	146.4	3.8	34.0
127.3	4.4	39.0	146.5	4.3	34.8
125.2	6.4	46.6	144.1	5.6	42.4
124.5	7.4	51.0	143.1	6.5	49.3
122.9	10.0	56.2	140.0	10.0	56.5
121.4	11.8	60.0	140.5	10.5	55.8
121.1	12.4	59.4	134.6	22.7	67.0
119.4	15.7	62.5	134.1	25.6	70.7
116.8	24.2	68.3	133.5	27.3	67.1
115.9	27.6	72.2	132.5	30.1	70.8
115.5	28.6	68.1	132.2	32.0	71.0
114.9	32.0	72.8	131.9	35.5	70.0
114.3	33.2	71.8	130.9	38.0	70.9
114.1	37.1	71.2	130.2	42.3	72.0
113.2	38.5	72.6	129.2	48.0	74.3
112.8	44.9	73.0	128.1	52.8	74.8
112.3	49.0	74.3	125.6	73.4	86.3
111.0	55.0	77.2	125.5	75.8	87.0
109.0	74.0	86.5			
109.0	76.7	84.0			
	12 atm			15 atm	
184.4	2.0	20.3	193.7	3.1	23.5
181.0	4.7	36.3	193.1	3.4	26.0
180.0	6.0	36.0	189.3	7.1	38.0
177.0	9.5	47.8	188.9	7.6	40.8
176.0	10.8	51.1	187.0	9.6	47.4
174.9	12.9	52.2	185.8	11.3	49.3
170.5	22.0	62.0	180.9	19.6	61.6
170.4	22.0	62.6	181.5	20.0	59.3
169.5	23.3	62.5	180.9	20.5	60.5
169.2	25.1	64.4	181.0	20.9	60.0
167.3	30.0	66.0	180.8	21.4	61.1
165.3	39.0	70.7	175.5	37.4	69.6
165.0	40.5	70.5	174.8	40.0	70.0
163.1	49.8	72.7	171.8	54.0	73.0
161.9	56.0	75.3	171.3	59.4	74.6
161.0	59.7	76.7	168.2	73.2	84.2
159.0	73.8	84.8	167.5	83.8	86.5
158.6	83.0	86.0	167.2	84.7	87.6
158.2	85.0	87.6	166.7	87.7	89.2
158.0	85.3	87.9	166.4	96.1	96.2
157.3	88.0	89.8	166.5	99.5	99.5
157.0	96.4	96.5			
157.5	97.8	99.9			
157.1	99.8	99.7			

Dornte, 1929

%	p	p_2	p_1
	25°		
0	23.7	0	23.7
5.30	27.9	10.3	17.6
13.74	34.2	19.6	14.6
25.32	41.2	27.7	13.5
34.38	45.6	32.2	13.4
46.21	48.7	35.4	13.3
54.85	50.6	37.7	12.9
65.53	52.5	40.5	12.0
75.25	54.4	43.3	11.1
84.79	56.1	46.1	10.0
92.30	58.4	50.7	7.7
94.96	57.8	52.4	5.4
100.00	58.8	58.8	0.0

% L	% V	p	p_2	p_1
		25°		
26.37	69.66	41.8	19.8	22.0
33.29	74.30	45.2	24.0	21.2
42.58	76.62	47.9	26.9	21.0
54.70	78.03	50.7	29.6	21.1
56.54	78.55	51.0	30.1	20.9
66.48	80.64	52.7	32.7	20.0
66.79	80.56	52.8	32.7	20.1
77.87	84.80	54.8	37.6	17.2
92.55	93.50	58.4	49.6	8.8

Kleinert, 1933

% L	V 120°	V 140°	V 160°	V 180°
5	38.0	36.0	32.5	30.0
10	50.0	48.0	45.0	42.0
15	57.5	55.0	52.5	50.0
20	62.5	60.0	58.0	55.0
25	65.5	63.5	61.5	59.0
30	68.5	66.0	64.5	62.0
35	70.0	68.5	66.5	65.0
40	71.0	70.0	68.5	66.5
45	73.5	71.5	70.0	69.0
50	74.5	73.5	72.5	70.5
55	75.5	75.0	74.0	72.5
60	77.5	76.5	75.5	74.5
65	79.0	78.5	77.5	76.0
70	81.0	80.0	80.0	78.5
75	83.5	83.0	82.0	81.0
80	85.5	85.0	85.0	84.0
85	88.0	88.0	87.5	86.5
90	91.0	90.5	90.5	90.0
95	95.0	95.0	95.0	95.0
100	100.0	100.0	100.0	100.0

Cornell and Montonna, 1933

wt% L	mol% L	wt% V	mol% V
20°			
0.6	0.3	6.2	2.5
1.1	.5	10.9	4.6
2.0	.8	20.0	8.9
2.1	.9	19.9	8.8
3.0	1.2	26.2	12.2
3.44	1.4	29.0	13.8
4.9	2.0	37.4	19.0
6.15	2.5	42.3	22.3
6.8	2.8	44.8	24.1
8.5	3.5	49.3	27.5
10.14	4.2	53.1	30.7
13.6	5.8	58.9	35.9
15.14	6.5	61.1	38.0
17.14	7.5	63.0	40.0
19.04	8.4	64.7	41.7
19.40	8.6	65.1	42.2
20.90	9.4	66.3	43.5
22.70	10.3	67.8	45.1
25.35	11.7	69.1	46.6
26.85	12.6	69.7	47.3
29.90	13.3	71.3	49.3
32.05	16.1	72.3	50.5
33.30	16.3	72.9	51.2
36.6	18.4	73.7	52.3
38.0	19.4	74.0	52.7
41.24	22.5	74.8	53.7
45.1	24.3	75.9	55.2
48.9	27.2	76.8	56.4
53.0	30.5	77.6	57.6
57.0	34.1	78.7	59.0
61.3	38.3	79.9	60.8
65.6	42.7	80.9	62.3
68.6	46.0	81.7	63.6
70.9	48.8	82.6	65.0
74.8	53.7	83.9	67.1
78.0	58.1	85.0	69.0
81.5	63.3	86.5	71.5
83.9	67.2	87.7	73.5
86.0	70.6	88.8	75.6
88.0	74.1	91.3	80.3
90.1	78.0	93.3	84.4
92.8	83.4	94.31	86.6
94.20	86.4	96.16	90.7
96.28	81.0	97.88	94.8
98.07	95.2		

Wiley and Harder, 1935

mol% L	mol% V	mol% L	mol% V
25°			
2.5	25.0	37.7	59.5
4.8	35.7	39.3	59.0
6.0	40.0	49.3	64.0
11.0	46.0	65.3	73.5
22.7	53.5	66.5	72.8
27.0	55.0	81.8	82.5
33.4	57.0		

Baker, Hubbard and al., 1939

mol% L	mol% V	mol% L	mol% V
760 mm			
75.0	78.6	33.7	58.9
72.2	76.6	31.2	59.1
68.1	74.2	28.6	57.3
65.2	72.0	26.8	56.2
61.7	70.7	24.5	55.5
57.5	68.9	20.8	52.7
49.7	65.2	19.8	53.1
46.1	64.3	16.6	51.6
42.1	62.4	15.6	50.6
38.9	61.3	11.0	45.6
36.3	60.2	8.8	42.0

Langdon and Keyes, 1942

mol% L	mol% V	mol% L	mol% V
at b.t.			
0.70	6.82	43.90	62.13
1.00	9.82	49.90	64.74
10.50	45.14	57.70	68.16
19.70	52.23	68.45	73.87
31.65	57.53	18.40	82.66

Beebe, Coulter and al., 1942

b.t.	mol% L	mol% V
760 mm		
85.3	20.10	52.85
79.0	64.90	71.95
78.5	90.75	90.40
-	94.50	94.00
380 mm		
78.1	1.60	14.70
69.3	8.55	43.00
67.5	20.60	54.15
65.3	34.95	59.45
64.7	46.75	64.10
64.4	58.00	68.90
63.8	70.00	74.95
62.7	84.20	84.88
63.6	89.67	89.73
63.0	97.27	96.92

b.t.	mol% L	mol% V
190 mm		
62.0	1.60	14.60
55.3	9.00	41.25
53.0	20.90	54.55
50.1	35.35	60.45
48.9	49.70	65.40
50.5	58.05	69.25
49.8	70.00	75.50
50.2	78.95	81.52
49.8	89.70	89.90
48.6	98.12	97.88
95 mm		
50.6	0.35	2.05
41.7	9.35	41.10
40.0	21.25	54.55
37.5	36.15	60.60
36.2	49.85	65.55
36.5	64.60	72.90
-	70.10	76.10
36.2	83.70	85.20
37.0	89.73	90.12
35.4	98.25	98.35

Griswold, Haney and Klein, 1943

t	P Kg	mol% L	mol% V
150	7.50	7.3	33.4
	8.33	13.8	41.4
	9.11	26.5	48.7
	10.16	51.4	61.6
	10.31	63.9	69.5
200	21.1	5.8	24.7
	23.2	11.4	33.8
	26.0	23.7	43.3
	29.2	49.7	58.5
	29.8	63.3	68.1
250	50.4	6.3	19.2
	53.8	11.1	26.8
	61.1	23.5	37.3
	68.7	50.7	54.9
	71.0	68.8	69.6
275	82.7	12.6	24.5
	94.3	26.0	34.4
	104.9	40.0	42.5

wt%	mol%	cr.t.	wt%	mol%	cr.t.
18.7	8.3	344.9	64.4	41.5	284.4
24.0	11.0	339.8	69.2	46.8	277.3
26.9	12.6	334.8	74.1	52.8	270.3
35.8	17.9	325.7	79.0	59.4	264.2
40.0	20.6	317.6	84.0	67.3	259.2
45.1	24.4	311.6	88.7	75.5	253.1
49.6	27.8	307.5	94.0	86.1	248.0
55.1	32.4	296.5	100.0	100.0	243.0
61.0	38.0	288.4			

wt%	mol%	cr.P Kg	wt%	mol%	cr.P Kg
16.3	7.1	198.9	63.9	40.9	113.8
30.9	14.9	171.6	80.0	61.0	85.8
46.0	25.0	144.8	86.5	71.5	77.3
			100.0	100.0	65.1

Jones, Schoenborn and Colburn, 1943

mol% L	mol% V	b.t.	mol% L	mol% V	b.t.
0	0	100	38.5	61.2	81.0
1.8	17.9	95.50	44.0	63.3	80.5
5.4	33.75	90.60	51.4	65.7	79.8
12.4	47.0	85.40	67.3	73.5	78.9
17.6	54.1	83.70	84.0	85.0	78.26
23.0	54.2	82.75	100.0	100.0	78.32
28.8	57.0	82.00			

t	p	mol% L	mol% V
50.50	133	4.6	29.0
50.52	157	9.3	42.4
50.25	164	12.25	48.2
50.75	177	15.8	50.7
50.51	200	33.3	59.0
50.50	196	34.25	58.6
50.20	207	51.3	64.9
50.20	220	82.4	84.5
50.50	225	90.8	91.0
60.60	219	5.1	31.6
60.65	249	8.6	39.3
60.70	298	19.7	51.7
60.65	325	37.5	59.6
60.70	342	50.9	64.8
60.65	344	52.7	66.0
60.50	343	54.5	67.1
60.65	363	80.8	82.6
60.65	364	85.1	86.2
60.80	366	86.0	86.7
60.65	362	97.2	97.2

Rieder and Thomson, 1949

b.t.	mol% L	mol% V	b.t.	mol% L	mol% V
100	0	0	83.4	20.6	53.0
99.3	0.28	3.2	83.0	21.0	52.7
96.9	1.18	11.3	82.3	25.5	55.2
96.0	1.37	15.7	82.0	28.4	56.7
-	1.44	13.5 sic	81.4	32.1	58.6
95.6	1.76	15.6	81.5	32.4	58.6
94.8	2.22	18.6	81.2	34.5	59.1
93.8	2.46	21.2	80.9	40.5	61.4
93.5	3.02	23.1	80.5	43.0	62.6
92.9	3.31	24.8	80.2	44.9	63.3
90.5	5.19	31.8	80.0	50.6	66.1
-	5.30	31.4	79.5	54.5	67.3
89.4	6.25	33.9	78.8	66.3	73.3
88.4	6.73	37.0	78.5	73.5	77.6
88.6	7.15	36.2	78.4	80.4	81.5
87.2	8.71	40.6	78.3	91.7	90.6
85.4	12.60	46.8	78.3	100.0	100.0
84.5	14.30	48.7			
84.0	17.20	50.5			

Othmer, Moeller and al., 1951

b.t.	L wt%	L mol%	V wt%	V mol%
		1.84 atm.		
127.6	1.9	0.7	20.5	9.2
125.9	2.5	1.2	23.7	11.0
120.6	11.8	5.0	55.4	32.7
114.0	26.0	12.1	68.0	45.4
112.0	31.0	14.9	70.0	47.8
112.5	39.4	20.3	71.8	50.0
110.0	54.2	31.6	78.1	58.2
107.8	75.3	54.4	83.4	66.3
107.5	78.0	58.2	84.4	68.0
-	78.3	58.6	84.2	67.6
107.3	85.9	70.5	89.0	76.1
107.3	87.3	72.9	90.0	77.9
107.0	91.1	81.7	93.0	83.9
104.8	98.4	96.0	98.4	96.0
		4.08 atm.		
141.8	6.7	2.7	41.9	22.1
133.2	29.3	13.9	69.3	44.6
131.2	36.1	18.1	70.1	47.8
129.0	48.2	26.7	74.5	53.3
128.9	49.9	28.1	74.6	53.5
127.2	66.4	43.6	79.4	60.1
126.3	74.5	53.3	82.0	64.0
125.0	86.3	71.1	89.0	76.0
125.0	88.4	74.9	89.8	77.5
124.6	98.3	95.8	98.0	95.0
124.7	99.7	99.2	99.2	98.2
		6.12 atm.		
151.8	12.3	5.3	51.5	23.9
150.7	12.8	5.5	54.0	28.9
146.0	28.7	13.6	66.4	43.6
145.5	31.0	14.9	67.6	44.9
142.8	42.6	22.5	71.1	49.0
140.5	55.0	32.3	75.1	54.1
140.2	56.1	33.1	75.5	54.6
137.1	81.2	62.8	85.3	69.4
137.6	87.6	73.4	89.3	76.5
136.0	89.5	76.9	90.5	78.9
135.6	99.3	98.2	99.2	98.0
		8.50 atm.		
158.8	23.7	10.8	62.6	39.5
153.5	38.1	19.4	69.2	46.7
151.3	52.5	30.2	72.5	50.7
150.7	54.5	32.8	74.5	53.3
150.6	53.4	33.6	74.3	53.0
148.0	78.1	58.2	83.2	65.9
147.5	81.6	63.4	84.7	68.4
147.3	89.3	76.5	90.4	78.6

mol% L	mol% V	mol% L	mol% V
	760 mm		
1.9	16.6	16.8	51.0
3.9	29.0	20.1	52.3
6.5	38.5	38.3	59.5
8.2	41.3	44.0	62.5
15.6	50.7		

Novella and Tarraso, 1952

mol% L	mol% V	b.t.	p_1	p_2
84.9	85.7	78.2	755	330.7
82.6	83.8	78.2	755	330.7
65.0	72.2	78.9	774	339.9
54.8	66.2	79.6	802	350.0
49.6	64.8	79.9	858	353.7
39.3	61.7	80.8	836	366.8
37.6	60.2	81.0	845	369.7
31.6	58.3	81.6	863	378.8
27.4	56.7	82.2	883	388.0
23.5	55.0	82.3	887	389.6
22.3	52.2	82.9	907	399.0
20.1	54.5	83.5	928	409.0
20.0	53.5	83.3	922	404.8
12.1	45.4	85.6	1005	444.0
4.5	30.3	90.6	1230	537.8
4.0	24.3	92.4	1295	575.5
1.5	17.5	95.2	1433	638.6

Vapour pressure .

Plücker, 1854 and Duflais, 1866

Vapour pressure (see author) .

Wüllner, 1866

t	p 0%	p 33.3%	p 50%	p 66.7%
11.8	10.32	21.00	23.90	25.00
15.4	13.08	-	29.05	-
20.5	17.93	35.41	39.26	41.76
30.4	32.27	62.00	68.76	72.80
40.0	54.90	103.25	-	120.60
40.3	55.80	-	116.75	-
50.5	94.31	173.98	189.86	201.15
60.3	151.25	277.38	300.75	318.85
67.2	206.67	376.45	-	-
70.0	234.12	-	463.55	490.62
80.4	360.49	642.81	704.67	745.36
81.7	380.63	-	747.73	790.57
84.6	426.31	760.00	-	-

t	80%	88.9%	100%
11.8	26.25	28.00	29.75
15.4	-	-	36.07
20.5	43.88	46.08	49.05
30.4	76.15	79.25	84.10
40.0	126.16	130.16	137.00
40.3	-	-	139.08
50.5	210.09	216.78	225.00
60.3	332.32	342.35	354.68
67.2	-	-	480.34
70.0	511.09	526.25	543.10
80.4	778.07	800.76	824.26
81.7	825.06	849.07	873.81
84.6	-	-	975.40

Konovalow, 1889

t	p	t	p	t	p
100%		85.8%		68.12%	
18.7	41.3	17.4	35.9	18.10	34.2
35.5	106.3	40.7	133.3	40.45	123.0
49.5	215.3	60.45	346.35	60.65	327.8
65.4	443.8	70.2	532.5	70.35	509.7
78.55	766.5	79.65	782.9	80.50	768.7
		79.95	789.5		
50.4%		33.13%			
15.3	27.4	21.15	85.1		
15.5	27.7	40.9	107.1		
40.6	117.5	60.45	281.6		
59.65	295.7	70.4	436.7		
60.05	301.4	80.25	654.0		
70.3	473.4				
70.15	470.7				
80.5	720.0				
80.55	720.9				

Foote and Scholes, 1911

%	p	p	p
	25°		
0.00	23.54	23.54	0.00
9.50	30.77	22.63	8.14
20.34	38.41	21.76	16.65
29.97	42.45	19.09	23.38
39.33	46.71	18.77	27.94
53.77	49.40	18.15	31.25
69.04	53.17	16.23	36.94
84.17	56.84	12.92	43.92
89.00	57.57	9.79	47.78
93.51	58.26	7.01	51.25
96.35	58.19	3.21	54.98
100.00	59.72	0.00	59.72

Dulitskaya, 1945

mol%	p	p_2	p_1
		50°	
0.0	42.5	0.0	92.5
9.56	154.5	74.1	80.4
16.0	173.3	93.3	80.0
25.0	187.0	107.5	79.5
33.66	193.3	114.7	78.6
48.70	202.8	132.0	70.8
74.55	216.3	170.0	46.3
100	220.0	220.0	0.0

Vrevskii, 1953

mol%	p_2	p_1	p
		39.76°	
15.48	55.80	45.40	101.2
23.33	63.81	44.80	108.6
36.77	73.36	42.34	115.7
48.08	81.90	40.00	121.9
60.89	90.08	35.22	125.3
88.96	105.00	24.20	129.2
93.90	123.60	7.90	131.5
		54.81°	
21.20	130.6	97.5	228.1
26.71	139.7	97.6	237.3
36.98	-	-	247.5
47.88	168.2	88.4	256.6
61.67	191.3	74.4	265.7
77.65	-	-	273.2
91.45	252.3	23.6	275.9

Usanovich, Sergeeva and Khairulina, 1955

%	p			
	20°	40°	55°	75°
88.0	40	129	271	653
69.9	36	117	251	614
48.4	-	105	230	567

%	p_1			
	20°	40°	55°	75°
88.0	9.0	24.5	53.0	166.0
69.9	13.5	42.0	74.0	247.5
48.4	-	47.0	103.5	258.5

%	p_2			
	20°	40°	55°	75°
88.0	31.0	104.5	218.0	487.0
69.9	22.5	75.0	157.0	366.5
48.4	-	58.0	126.5	308.5

Boiling point .

Alluard, 1864

%	b.t. 735.1 mm	b.t. 760 mm	%	b.t. 735.1 mm	b.t. 760 mm
0.99	99.0	100.0	11.12	86.2	87.25
1.64	96.1	97.2	16.67	85.2	86.20
3.23	93.35	94.4	25	83.1	84.05
4.76	92.2	93.2	40	81.85	82.85
9.10	88.9	89.9	100	77.5	78.50

Haywood, 1899

754.0 mm

%	b.t.	%	b.t.
0.0	99.25	47.7	81.85
18.2	87.35	51.2	81.55
22.2	85.90	54.7	80.95
24.4	85.40	62.6	80.40
30.9	83.90	75.1	79.30
37.4	83.00	85.8	78.50
42.5	82.35	100.0	78.30
45.1	82.05		

Noyes and Warfel, 1901-2

%	b.t.	%	b.t.
0.5	99.65	79.0	79.133
1.0	98.95	80.0	79.050
1.5	98.55	81.0	78.968
2.0	98.05	82.0	78.879
3.0	97.11	83.0	78.806
4.5	95.63	84.0	78.723
5.5	94.84	85.0	78.645
7.0	93.73	86.0	78.575
8.0	93.10	87.0	78.530
10.0	91.80	88.0	78.445
13.0	90.02	89.0	78.385
18.0	87.92	90.0	78.323
20.0	87.32	91.0	78.270
22.0	86.11	92.0	78.259
26.0	85.41	92.5	78.241
29.0	84.86	93.0	78.227
35.0	83.87	93.5	78.211
37.0	83.76	94.0	78.195
48.0	82.43	94.5	78.186
55.0	81.77	95.0	78.177
63.0	80.642	95.5	78.176
65.0	80.438	96.0	78.174
67.0	80.237	96.5	78.179
69.0	80.042	97.0	78.181
71.0	78.862	97.5	78.191
73.1	79.683	98.0	78.205
75.0	79.505	98.5	78.222
76.0	79.404	99.0	78.243
77.0	79.354	99.5	78.270
78.0	79.214	100.0	78.300

Young and Fortey, 1902

%	b.t.
0	100
95.57	78.10 Az
100	78.30

dp/dt (Az) = 30.2 mm/degree

23.30° 60 mol% dt = 2.95°

Young, 1902

%	b.t.
95.57	78.15 Az
100	78.30

Wade and Finnemore, 1905 and Wade, 1904

%	b.t.
0	100
95.5	78.15
100	78.30

Doroshevskii and Plyanskii, 1910

%	b.t. 700 mm	b.t. 760 mm	b.t. 800 mm	
0	97.72	100.0	101.44	100.0
10	89.28	91.47	92.86	91.47
20	84.89	87.05	88.43	87.05
30	82.42	84.58	85.94	84.58
40	81.00	83.13	84.49	83.13
50	79.78	81.91	83.26	81.91
60	78.92	81.04	82.38	81.04
70	78.03	80.14	81.47	80.14
80	77.22	79.32	80.64	79.32
90	76.46	78.54	79.86	78.54
95.57	72.16	78.23	79.54	78.35
100	76.26	78.35	79.66	78.23

Vrevskii, 1910

% Az	b.t.	p
95.7	74.79	654
96.5	54.81	276
97.6	39.76	131

Merriman, 1913

p	Az %	Az b.t.	b.t. alcohol	b.t. water
70.0	0.0	-	27.96	44.63
94.9	0.5	33.35	33.38	50.62
129.7	1.3	39.20	39.24	57.06
198.4	2.7	47.63	47.66	66.31
404.6	3.75	63.04	63.13	83.27
760.0	4.4	78.15	78.30	100.00
1075.4	4.05	87.12	87.34	110.00
1451.3	4.75	95.35	95.58	119.14

Öman and Gunnelius, 1925

%	b.t.	%	b.t.
0.5	99.44	50	81.31
1	98.88	51	81.23
2	97.88	52	81.15
3	96.92	53	81.07
4	96.05	54	80.99
5	95.18	55	80.91
6	94.34	56	80.83
7	93.55	57	80.75
8	92.83	58	80.67
9	92.13	59	80.58
10	91.45	60	80.50
11	90.82	61	80.42
12	90.18	62	80.34
13	89.57	63	80.26
14	88.97	64	80.18
15	88.40	65	80.10
16	87.85	66	80.02
17	87.34	67	79.94
18	86.86	68	79.87
19	86.42	69	79.80
20	86.03	70	79.72
21	85.70	71	79.54
22	85.40	72	79.36
23	85.14	73	79.48
24	84.90	74	79.41
25	84.68	75	79.34
26	84.47	76	79.26
27	84.27	77	79.18
28	84.09	78	79.10
29	83.91	79	79.02
30	83.75	80	78.95
31	83.60	81	78.87
32	83.48	82	78.80
33	83.28	83	78.72
34	83.12	84	78.65
35	82.98	85	78.57
36	82.84	86	78.50
37	82.70	87	78.43
38	82.56	88	78.37
39	82.43	89	78.30
40	82.30	90	78.24
41	82.19	91	78.19
42	82.08	92	78.14
43	81.97	93	78.10
44	81.87	94	78.06
45	81.76	95	78.04
46	81.67	96	78.04
47	81.58	97	78.06
48	81.49	98	78.08
49	81.40	99	78.10
		100	78.13

Brun, 1931

%	b.t.	%	b.t.
0.00	78.80	82.85	84.25
25.30	78.55	90.30	88.45
38.85	79.45	95.00	92.10
51.05	81.20	97.00	95.85
65.25	82.25	100.00	100.00

Aldrich and Querféld, 1931

vol %	b.t.	vol %	b.t.
	760 mm		
92.6	90	81.8	40
88.4	80	80.8	30
86.0	70	79.9	20
84.2	60	78.9	10
82.9	50	78.4	0

Bosnjakovic and Grumbt, 1931

%	b.t.				
Atm	1.0	1.25	1.5	1.75	2.0
0	99.1	105.4	110.8	115.4	119.6
5	94.3	99.2	105.3	110.1	113.8
10	90.5	96.3	101.4	106.0	109.5
15	87.8	93.6	98.7	103.1	106.9
20	86.0	91.6	96.8	101.0	105.0
25	84.7	90.2	95.5	99.5	103.5
30	83.6	89.0	94.4	98.4	102.5
40	82.0	87.8	92.7	97.0	100.8
50	80.9	86.5	91.8	95.7	99.7
60	79.9	85.4	90.6	94.6	98.6
70	79.0	84.4	89.7	93.6	97.5
80	78.2	83.9	88.7	92.7	96.6
90	77.9	83.0	87.7	91.8	95.7
100	77.8	83.0	87.7	91.8	95.7

Kleinert, 1933

Az %	P Kg	b.t.
95.05	4.41	120
94.91	7.73	140
94.80	12.77	160
94.73	20.11	180

Silgardo and Storrow, 1950

mol %	b.t.	mol %	b.t.
0.0	100	69.8	49.5
9.0	97.7	83.4	78.5
17.4	95.2	91.9	78.0
25.7	92.5	96.8	"
37.4	88.6	100.0	"

Freezing point .

Rossetti, 1870

%	f.t.
0	- 0
5.85	- 2.63
7.80	- 3.54
14.40	- 7.35
14.62	- 7.47
19.50	-12.10

Raoult, 1874

%	f.t.	%	f.t.
2.41	-0.95	19.80	-10.60
4.80	-1.95	22.57	-12.80
6.79	-2.80	28.92	-18.90
9.53	-4.00	33.78	-24.30
13.18	-5.80	37.37	-28.20
16.36	-7.80	41.21	-32.10

Guthrie, 1875

%	f.t.	%	f.t.
5	-2	40	-27
10	-4.3	45	-31
15	-7.2	50	-37
20	-10.7	55	-42
25	-14.7	60	-45
30	-19.4	70	-53
35	-23.3		

Pickering, 1893

%	f.t.	%	f.t.
0.488	-0.21	31.986	-22.34
0.996	.44	34.852	25.00
1.462	.63	37.456	27.03
1.961	.85	39.876	29.60
2.940	1.25	42.377	31.40
3.921	1.66	44.734	32.50
4.927	2.03	47.109	34.80
5.897	2.52	50.834	37.60
6.877	3.03	54.681	40.00
7.859	3.45	57.591	41.50
8.839	4.00	59.960	42.95
9.822	4.51	61.865	44.40
10.656	4.87	62.954	44.80
11.435	5.31	63.839	45.80
11.734	5.49	64.578	46.50
12.833	6.11	64.698	46.80
13.622	6.61	65.830	47.90
14.204	6.94	66.181	48.00
15.323	7.76	67.586	49.35
16.307	8.44	69.080	51.25
16.345	8.37	69.352	51.30
17.077	8.92	70.651	53.00
17.987	9.67	70.955	53.50
18.942	10.24	72.018	55.75
19.936	10.99	72.257	55.50
21.517	12.33	73.443	56.50
22.929	13.61	74.382	58.20
24.684	15.22	75.005	59.50
25.817	16.42	75.041	60.00
27.555	18.22	75.769	61.00
30.113	-20.49	76.511	-62.00

Abegg, 1894

mol%	f.t.	mol%	f.t.
1.608	-3.215	3.236	-7.49
2.098	-4.350	3.883	-9.705
2.589	-5.605	5.178	-15.09

Pictet and Altschul, 1895

%	f.t.	%	f.t.
2.5	-1.0	22.1	-12.2
4.8	-2.0	24.2	-14.0
6.8	-3.0	26.7	-16.0
11.3	-5.0	29.9	-18.9
13.8	-6.1	33.8	-23.6
16.4	-7.5	39.0	-28.7
17.5	-8.7	46.3	-33.9
18.8	-9.4	56.1	-41.0
20.3	-10.6	71.9	-51.3

Jones, 1904, Jones and Getman, 1904

M	f.t.	M	f.t.
0.5	-0.895	5.0	-14.200
1.0	1.872	6.0	19.000
2.0	4.010	7.0	24.250
3.0	6.720	8.0	-30.000
4.0	-9.960		

Pushin and Glagoleva, 1923

mol%	f.t.	E	min.
0.39	-0.387	-	-
0.79	0.875	-	-
1.18	1.240	-	-
2.01	2.054	-	-
7	9.0	-	-
10	13.2	-	-
20	30.2	-117.6	-
25	33.2	118.4	5
30	38.7	117.8	-
40	46.5	118.4	-
50	64.0	118.4	-
60	72.5	119.1	20
70	90.0	118.7	24
75	102.2	-126	-
85	118.4	-	48
88	117.8	-	-
90	114.5	-	-
95	113.2	-	-
96.8	112.0	-	-
97	111.9	-	-
97.6	111.5	-	-
99	110.9	-	-
100	-110.5	-	-

Tarasenkov, 1928

%	f.t.	%	f.t.
5.1	-2.1	43.0	-33.0
9.3	4.1	46.7	35.4
14.2	6.7	51.9	38
17.8	10.2	56.3	42
24.4	15.2	61.4	45
29.0	19.1	66.1	48
33.3	24.2	70.2	56
37.6	-28.4	74.7	-67

Aldrich and Querfeld, 1931

vol%	f.t.	vol%	f.t.
10	-3.6	40	-22.7
20	-8.6	50	-30.7
30	-15.1	60	-38.8

Benjamin, 1932

mol%	f.t.	mol%	f.t.	E
19.3	-28.6	69.9	-83.7	-124.5
32.8	-43.9	77.5	-98.0	-123.8
41.0	-51.5	83.8	-115.3	-124.0
49.3	-59.3	92.5	-118.2	-124.5
		100.0	-113.5	-

Lalande, 1934

%	f.t.	%	f.t.
10	-5	60	-42
20	-11	70	-50
30	-20	80	-68
40	-29.5	90	-115
50	-36.5	92	-123
		100	-114

wt%	mol%	f.t.	wt%	mol%	f.t.
0	0	0	75.0	54.0	-55.0
4.56	1.83	-1.92	79.6	60.5	-65.5
8.96	3.70	4.00	84.8	68.5	91.6
16.12	7.0	8.00	85.8	70.3	91.6
24.08	11.0	14.6	86.3	71.2	93.8
35.44	17.6	25.7	89.3	71.7	109
41.37	21.6	30.6	92.4	82.8	123
49.40	37.6	36.0	94.0	86.2	121.6
59.80	36.8	42.0	97.9	93.0	117
68.90	46.4	-48.6	100.0	100.0	-114.5

Ross, 1954

%	f.t.	%	f.t.
10	-4.5	50	-36.5
20	-10.3	60	-44.5
30	-18.8	70	-53.5
40	-29.3		

Hansen and Miller, 1954 (fig.)

mol%	activity coefficient
0	3.7
20	2.2
40	1.4
50	1.25
60	1.1
80	1.05
84	1.01

Properties of phases.

Density

The following works are only of historical interest, either older than the classical work of Mendeleev, or in recent publications of no sufficient accuracy (less than five decimals) :

Tralles, 1811

Rudberg, 1831

Fownes, 1847

Collardeau, 1861

Gay-Lussac, 1862

Landolt, 1865

Recknagel, 1866

Hoh, 1876

Traube, 1885

Wernstein, 1889

Nernst, 1893

Thorpe, 1897

Blanchard, 1904

Wade and Finnemore, 1904

Dunstan and Thole, 1909

Fresenius and Grünhut, 1912

Grunmach, 1912

Herz and Anders, 1918

Herz, 1918

Springer and Roth, 1930

Bordas and Roelens, 1930

Graffunder and Heymann, 1931

Carey and Lewis, 1932

Lalande, 1934

Tarasow, Bering and Sudorowa, 1936

Ernst, Watkins and Ruwe, 1936

Essex and Kelly, 1935

mol%	α (liters per mole) = $V_{calcul.} - V_{obs.}$		
	1 - 5 atm.	1 - 6 atm.	1 - 8 atm.
	152.9°	163.5°	173.9°
0.0	0.284	0.278	0.254
11.6	.312	.335	.300
20.1	.370	.355	.318
24.9	.374	.362	.326
29.5	.378	.353	.329
34.3	.370	.363	.327
45.5	.384	.375	.343
55.5	.392	.395	.343
70.2	.432	.392	.350
80.3	.444	.403	.353
93.9	.492	.455	.413
99.6	.498	.469	.424

Mendelejeff, 1869

%	d				
	0°	10°	15°	20°	30°
100	0.80625	0.79788	0.79367	0.78945	0.78096
95	.82119	.81291	.80862	.80433	.79559
90	.83482	.82665	.82246	.81801	.80918
85	.84789	.83967	.83543	.83115	.82232
80	.86035	.85215	.84792	.84366	.83483
75	.87245	.86427	.86006	.85580	.84719
70	.88420	.87613	.87199	.86781	.85925
65	.89595	.88790	.88377	.87961	.87125
60	.90742	.89944	.89536	.89129	.88304
55	.91848	.91074	.90678	.90275	.89456
50	.92940	.92182	.91796	.91400	.90577
45	.93977	.93254	.92875	.92493	.91710
40	.94939	.94255	.93900	.93511	.92787
35	.95784	.95174	.94848	.94514	.93813
30	.96540	.95998	.95702	.95403	.94751
25	.97115	.96672	.96445	.96185	.95628
20	.97566	.97263	.97080	.96877	.96413
15	.97995	.97816	.97682	.97527	.97142
10	.98493	.98409	.98315	.98195	.97892
5	.99135	.99113	.99041	.98945	.98680
0	.99988	.99975	.99918	.99831	.99579

van der Willigen, 1869

%	d
	23°
98.9	0.79087
86.8	.82434
53.9	.90327
38.8	.93524
0	.99757

Squibb, 1873

%	d 4°	d 15°	d 15.6°	d 25°
0	1.00000	0.99913	0.99903	0.99707
40	0.94655	.93875	.93838	.93168
44	.93875	.93056	.93018	.92313
48	.93045	.92206	.92160	.91441
52	.92177	.91324	.91283	.90549
56	.91297	.90427	.90379	.89640
60	.90401	.89524	.89530	.88719
64	.89479	.88601	.88552	.8778[illegible]
68	.88516	.87631	.87582	.8[illegible]801
72	.87600	.86678	.86624	.85850
76	.86655	.85718	.85674	.84892
80	.85683	.84750	.84694	.83915
84	.84681	.83747	.83695	.82909
88	.83649	.82728	.82675	.81886
92	.82593	.81658	.81601	.80823
96	.81467	.80533	.80486	.79702
98	.80875	.79943	.79870	.79089
99	.80579	.79645	.79595	.78806
100	.80287	.79326	.79279	.78496

Drecker, 1883

%	d 0°	d 21.67°	d 30.68°	d 40.90°
0	0.99987	0.99790	0.99556	0.99201
8.253	.98764	.98420	.98152	.97765
16.666	.97880	.97311	.96948	.96452
25.668	.97045	.96046	.95537	.94899
34.523	.95923	.94595	.93971	.93221
45.041	.94084	.92509	.91810	.90990
54.473	.92060	.90456	.89727	.88862
65.503	.89622	.87947	.87191	.86300
76.339	.87121	.85411	.84637	.83721
86.631	.84673	.82900	.82117	.81021
100.000	.81074	.79284	.78515	.77616

Naack, 1886

%	d 15°	%	d 15°
0.0	0.99913	49.12	0.91940
8.21	.98557	53.36	.90999
16.60	.97452	64.64	.88415
25.23	.96367	75.75	.85775
34.58	.94870	87.45	.82818
38.98	.94035	99.72	.79404
43.99	.93030		

Kreitling, 1892

%	d 0°	d 5°	d 10°	d 15°
0	0.99987	0.99999	0.99973	0.99913
5	.99128	.99129	.99097	.99034
10	.98486	.98454	.98395	.98308
15	.97991	.97913	.97810	.97682
20	.97564	.97423	.97262	.97080
25	.97103	.96894	.96669	.96429
30	.96524	.96255	.95974	.95687
35	.95809	.95492	.95170	.94837
40	.94949	.94601	.94250	.93891
45	.93975	.93609	.93239	.92866
50	.92932	.92553	.92171	.91785
55	.91847	.91457	.910[illegible]	.90667
60	.90731	.90334	.89933	.89525
65	.89592	.89188	.88780	.88366
70	.88432	.88023	.87609	.87189
75	.87252	.86837	.86418	.85995
80	.86046	.85627	.85205	.84778
85	.84805	.84384	.83957	.83541
90	.83510	.83087	.82662	.82232
95	.82130	.81707	.81282	.80852
100	.80628	.80207	.79783	.79356

%	d 20°	d 25°	d 30°	d 35°
0	0.99823	0.99706	0.99566	0.99405
5	.98941	.98820	.98671	.98496
10	.98195	.98055	.97886	.97691
15	.97531	.97354	.97149	.96923
20	.96878	.96655	.96414	.96152
25	.96176	.95905	.95672	.95321
30	.95380	.95666	.94745	.94409
35	.94503	.94158	.93804	.93242
40	.93245	.93158	.92786	.92407
45	.92485	.92099	.91705	.91307
50	.91393	.90993	.90585	.90176
55	.90274	.89857	.89442	.89028
60	.89115	.88700	.88280	.87857
65	.87949	.87527	.87102	.86671
70	.86767	.86341	.85909	.85483
75	.85567	.85138	.84701	.84263
80	.84348	.83915	.83476	.83035
85	.83099	.82664	.82222	.81780
90	.81801	.81365	.80924	.80483
95	.80424	.79990	.79553	.79115
100	.78930	.78501	.78073	.77642

Sohet, 1898

t	d	t	d	t	d
0 %		20.87%		27.098%	
		16°			
16	1	17	0.971	18	0.962
38.75	0.991	63	.947	45	.946
72.50	.972	86	.931	72	.931
111	.950	103.50	.914	120.50	.892
134	.930	120.75	.902	146	.865
150.50	.919	146.50	.879		
32.653%		36.497%		50.329%	
16	0.953	17.50	0.947	18.50	0.916
65	.919	37.50	.933	40	.908
89	.904	96	.882	75	.872
110.50	.885	110.50	.869	105.50	.847
135	.862	136	.841	116	.831
145.75	.849	152	.824	142.50	.800
100%					
20	0.794				
44.50	.781				
74	.752				
101	.726				
133.50	.689				

Jones, 1904 and Jones and Getman, 1906

M	d	M	d
	0°		
0.5	0.993100	5.0	0.963564
1.0	0.988588	6.0	0.954880
2.0	0.982056	7.0	0.947720
3.0	0.975380	8.0	0.937332
4.0	0.969600	0	0.999868

Hess, 1905

%	d 15°	d 20°	d 25°	d 30°
0	0.99913	0.99823	0.99707	0.99567
20.750	.97133	.96957	.96781	.96605
40.890	.94118	.93858	.93605	.93351
59.984	.90273	.89944	.89617	.89293
79.989	.85785	.85393	.85006	.84622
100	.80889	.80447	.80009	.79576

Cheneveau, 1907

%	d	%	d
	22°		
0	0.9978	54.29	0.9094
8.15	.9868	64.85	.8783
16.50	.9730	75.98	.8543
25.31	.9613	87.68	.8234
34.52	.9454	100.00	.7886
44.16	.9264		

Pissarjewsky and Karp, 1908

mol%	d
12°	
0.5	0.9958
1	.9918
2	.9852
4	.9734

Schwers, 1909

t	d	t	d	t	d
93.550%		59.605%		29.994%	
16.80	0.81113	15.10	0.89618	16.90	0.95590
35.10	.79515	34.75	.87967	34.15	.94496
52.75	.77898	51.50	.86493	52.45	.93184
62.60	.76945	62.00	.85524	62.25	.92445
		70.85	.84691	71.30	.91684
89.907%		49.922%		19.510%	
14.60	0.82315	15.20	0.91797	16.80	0.97071
36.15	.80432	35.00	.90218	34.75	.96246
53.92	.78769	52.95	.88692	52.70	.95203
62.47	.77946	61.15	.87982	61.40	.94617
73.40	.76825	70.55	.87098	71.70	.93881
80.622%		46.008%		16.520%	
14.70	0.84654	15.10	0.92655	16.10	0.97464
34.10	.82956	35.00	.91089	34.20	.96730
52.00	.81332	52.60	.89630	53.10	.95710
61.60	.80426	61.80	.88858	62.00	.95148
74.20	.79149	72.80	.87905	72.40	.94432
69.769%		39.860%		9.983%	
15.85	0.87182	15.30	0.93905	16.90	0.98273
34.15	.85617	34.30	.92487	34.00	.97740
51.60	.84031	52.05	.91072	52.95	.96862
61.65	.83092	61.15	.90308	61.75	.96363
71.45	.82144	70.95	.89486	73.10	.95712
4.990%					
14.70	0.99037				
35.50	.98485				
52.80	.97745				
62.45	.97226				
73.50	.96572				

Osborne, Mc Kelvyd and Bearce, 1910

t	d			
	4.907%	9.984%	19.122%	22.918%
10	0.991108	0.983963	0.960036	0.953587
15	.990468	.983070	.962747	.956588
20	.989530	.981896	.965289	.959440
25	.988317	.980461	.967648	.962133
30	.986854	.978784	.969810	.964660
35	.985163	.976884	.971763	.967016
40	.983267	.974781	.973492	.969190
	30.086%	39.988%	49.961%	59.976%
10	0.940390	0.919947	0.921705	0.899323
15	.943877	.923874	.917844	.895290
20	.947258	.927727	.913922	.891200
25	.950529	.931507	.909937	.887051
30	.953686	.935215	.905888	.882842
35	.956729	.938851	.901774	.878570
40	.959650	.942415	.897591	.874233
	70.012%	80.036%	90.037%	99.913%
10	0.875989	0.851882	0.826443	0.798118
15	.871845	.847644	.822174	.793879
20	.867641	.843362	.817866	.789620
25	.863380	.839031	.813516	.785337
30	.859060	.834646	.809120	.781026
35	.854681	.830202	.804673	.776681
40	.850241	.825694	.800172	.772298

%	d	%	d
25°		15°	
0	0.997071	0	0.99913
2	.993359	10	.98304
5	.988166	20	.97069
6	.986563	30	.95686
10	.980434	40	.93883
15	.973345	50	.91776
20	.966392	60	.89523
25	.958946	70	.87187
30	.950672	80	.84772
35	.941459	90	.82228
40	.931483	100	.79360
45	.920850		
50	.909852		
55	.898502		
60	.886990		
65	.875269		
70	.851336		
75	.839114		
80	.826596		
90	.813622		
95	.799912		
98	.791170		
99	.788135		
100	.785058		

Denison, 1912

%	d	%	d
15.6°		0°	
0	0.9990	20	0.97553
10	.9831	30	.96537
20	.9706	40	.94926
30	.9568	50	.92928
40	.9387	60	.90730
45	.9283		
50	.9193		
60	.8947		
80	.8495		
100	.7946		

Mathews and Cooke, 1914

t	d
45%	
0	0.9507
25	.9307
40	.9179
55	.9068
70	.8946

Schoorl and Regenbogen, 1917

%	d	%	d
15°			
0	0.99913	42.528	0.933715
8.176	.98555	51.877	.91360
10.695	.98210	67.342	.87813
10.931	.98180	85.971	.83277
14.130	.97770	100	.79359
19.282	.97154		

Herz and Anders, 1918

%	d		%	d
		25°	70.01	0.86322
0	0.99707		100	0.78560
20.18	0.96617			
40.69	0.93020			

Burrows, 1919

%	d
30°	
25.44	0.955387
30.47	.946572
36.62	.934695
47.11	.912305
58.89	.885436

Bircumshaw, 1922

%	d	%	d
	25°		
0	0.99707	59.58	0.88801
2.72	.99212	68.94	.86623
5.21	.98784	77.98	.84346
11.10	.97834	87.92	.81900
20.50	.96569	92.10	.80782
30.47	.94983	97.00	.79394
40.00	.93176	100.00	.78494
50.22	.90958		

Barbaudy, 1926

%	d	%	d
	25°		
0	0.99707	60.00	0.88699
10.00	.98043	70.00	.86340
20.00	.96639	73.46	.85506
30.00	.95067	79.98	.83911
40.00	.93148	89.97	.81369
50.00	.90985	100.00	.78506

Frost, 1930

Densities at 15°, τ at 0-30° and π at 0-50°
(see author)

Herz, 1930

%	d
15°	
20.750	0.97133
40.890	.94118
59.984	.90273
79.989	.85785

Brun, 1931

%	d 0°	d 20°	%	d 0°	d 20°
0.00	0.99986	0.99823	47.28	0.93422	0.91948
1.206	.99208	.99064	52.15	.92290	.90857
5.16	.99155	.98839	65.69	.90510	.88895
9.51	.98504	.98244	69.24	.89300	.87730
10.65	.98209	.98050	74.70	.87140	.85528
15.80	.97887	.97400	80.18	.86030	.84360
19.05	.97547	.96932	83.20	.84208	.83586
20.09	.97435	.96820	90.95	.83334	.81732
30.20	.96756	.95298	95.70	.81878	.80212
31.22	.96360	.95204	99.00	.80908	.79188
39.45	.95173	.93788	99.08	.80963	.79188
41.97	.94395	.93086			

Spells, 1936

%	d	%	d
	10°		
0	0.99973	60	0.89927
10	.98393	70	.87602
20	.97252	80	.85197
30	.95977	90	.82654
40	.94238	100	.79784
50	.92162		

Wiley and Harder, 1935

mol%	d	mol%	d
	25°		
2.5	0.9861	37.7	0.8853
4.8	.9782	39.3	.8813
6.0	.9748	49.3	.8603
11.0	.9607	65.3	.8323
22.7	.9274	66.5	.8304
27.0	.9142	81.8	.8059
33.4	.8956		

Harms, 1938

mol%	d	mol%	d
	15°		
0.000	0.999126	47.734	0.87186
0.792	.99542	56.708	.85510
1.605	.99196	65.639	.84032
3.726	.98435	74.155	.82756
5.987	.98790	81.817	.81688
7.909	.97311	88.143	.80851
15.550	.95355	92.674	.80270
22.077	.93482	97.483	.79666
35.078	.89980	100.000	.79354

Troy and Scott, jr., 1946

%	d	%	d
	25°		
99.73	0;78590	68.39	0.86725
99.53	0.78650	66.58	0.87154
98.94	0.78833	65.56	0.87395
98.57	0.78943	62.13	0.88220
98.46	0.78979	62.07	0.88217
98.14	0.79076	59.13	0.88900
97.76	0.79187	56.02	0.89616
97.52	0.79259	53.53	0.90186
96.91	0.79440	52.42	0.90438
96.23	0.79640	49.10	0.91185
96.06	0.79690	48.14	0.91397
94.90	0.80018	43.96	0.92310
93.26	0.80476	42.59	0.92604
92.49	0.80690	41.50	0.92834
90.24	0.81298	38.97	0.93359
89.83	0.81408	35.25	0.94098
88.16	0.81846	33.34	0.94461
88.03	0.81879	30.59	0.94962
86.57	0.82259	30.64	0.94954
86.52	0.82271	29.52	0.95150
85.00	0.82661	27.22	0.95540
84.80	0.82711	25.13	0.95874
84.42	0.82806	23.75	0.96084
83.27	0.83096	22.94	0.96208
81.47	0.83546	20.83	0.96519
80.82	0.83709	20.86	0.96515
80.57	0.83770	19.66	0.96688
79.79	0.83962	17.86	0.96942
78.85	0.84195	14.25	0.97437
77.62	0.84496	10.46	0.97976
77.34	0.84564	9.39	0.98134
76.76	0.84705	8.97	0.98198
76.63	0.84738	6.46	0.98585
75.59	0.84991	4.80	0.98850
74.21	0.85325	4.83	0.98846
73.64	0.85462	2.05	0.99327
71.47	0.85987	0.86	0.99541
70.84	0.86139	0	0.99708
68.79	0.86629		

Griswold, Chu and Winsauer, 1949

%	d
25°	
0	0.99707
32.3	.94619
48.5	.91314
66.1	.87243
100.0	.78459

Jacobson, 1951

vol%	d	vol%	d
	20°		
0	0.9982	58.9	0.9037
9.9	.9839	68.6	.8847
19.3	.9734	79.1	.8566
31.3	.9571	89.6	.8283
39.1	.9448	100.0	.7919
48.7	.9258		

Rossetti, 1870

%	t maximum density	%	t maximum density
0	+4.12	9.75	-0.19
5.85	+3.17	14.40	-7.35
7.80	+1.82	14.62	-8.48

Hutchinson, 1926

M	t maximum density
2	0.15
1	3.70
0.5	4.25
0.25	4.20
0.125	4.15

Tammann and Schwarzkopf, 1908

t	Dv*	t	Dv	t	Dv
10%		12%		20%	
+0.4	-0.21	-1.8	+0.73	-0.4	+0.53
-0.6	-0.18	-2.1	.74	-3.6	7.62
-1.0	-0.31	-2.6	.78	-7.6	15.16
-1.6	-0.50	-4.4	.38	-8.6	15.75
-2.0	-0.66	-4.6	.32	-9.7	17.55
-3.0	-1.17	-5.6	+0.03	-10.4	18.51
-4.0	-1.86	-6.6	-0.50	-11.8	20.11
-5.0	-2.78	-7.6	-1.25	-13.6	21.97
-6.0	-3.71	-8.0	-1.59	-14.0	22.49
-7.0	-4.82	-9.2	-2.58	-15.2	23.42
		-9.6	-2.95	-15.6	+24.06

*in cc . 10^4 per 1 cc at 0°

Turbaba, 1890

mol%	a . 10^7	b . 10^9
7.40	1810	5000
3.85	152	5970

$$v_t = 1 + a\,t + b\,t^2$$

Drecker, 1883

%	τ.107	%	τ.107
	25°		
0	2549	54.473	9098
8.253	2937	65.503	9723
16.666	4074	76.339	10771
25.668	5942	86.631	10731
34.523	7407	100	11109
45.041	8514		

%	π	%	π
	25°		
0	45.5	62.95	65.0
12.37	42.0	79.72	80.7
23.91	41.1	85.13	88.6
34.61	44.8	100	113.8
50.29	54.5		

Pagliani and Palazzo, 1883

%	π	%	π
	0°		
0	50.3	23.98	38.1
6.69	46.4	29.19	39.1
11.38	43.1	38.28	43.4
13.29	41.7	50.88	49.9
19.67	38.5	100	97.0

Pagliani and Palazzo, 1883, Pagliani, 1889

t	π	t	π	t	π
0%		6.69%		11.38%	
0	52.1	0	47.5	0	42.9
15.90	46.85	19.05	44.1	14.4	41.7
31.06	44.25	45.70	40.7	21.8	40.7
49.31	42.20	55.45	40.0	29.95	40.2
61.15	40.80	64.15	39.6	39.8	40.2
77.36	41.70	71.00	40.0	47.6	40.1
				67.6	40.8
19.67%		23.98%		29.19%	
0	39.7	0	39.3	0	40.3
21.3	40.1	24.65	40.8	19.65	41.3
38.28%		50.58%			
0	44.6	0	50.9		
18.9	46.0				

Moesveld, 1923

%	π			
	1 atm.	1 - 500	1 - 1000	1 - 1500
0	44.5	42.3	39.5	37.1
10	41.5	39.3	37.2	35.2
20	39.7	37.8	35.9	33.9
30	41.8	39.5	37.1	34.7
40	45.8	43.0	40.0	37.0
55	57.9	51.7	46.6	42.5
70	71.5	61.6	54.1	49.3
85	82.0	71.0	61.5	54.8
100	100.6	84.8	72.5	63.2

Tarasow, Bering and Sudorowa, 1936

%	π	%	π
	20°		
10	43.9	30	40.7
15	41.5	35	42.3
20	40.8	40	44.6
25	40.5		

Jacobson, 1951

vol%	π	vol%	π
	20°		
0	45.35	58.9	50.60
9.9	42.35	68.6	56.25
19.3	39.90	79.1	65.03
31.3	39.33	89.6	74.82
39.1	41.22	100.0	92.53
48.7	45.13		

Viscosity and surface tension

Poisseuille, 1846

Viscosity (see author)

Stephan, 1882

t	η	t	η
	35.11 %		
10.21	3869	29.94	2057
22.59	2553		
	48.55 %		
12.56	3759	26.47	2395
13.42	3604	30.02	2189
23.61	2656		
	49.00 %		
10.00	4133	21.39	2825
12.42	3754	25.00	2551
13.42	3653	25.01	2524
14.99	3438	30.77	2139
18.30	3099	31.20	2102
20.20	2926		
	70.00.%		
10.19	3263	21.52	2277
11.80	3083	24.78	2104
14.98	2768	25.01	2068
16.10	2680	28.49	1888
19.89	2421	29.20	1849
20.13	2376		

Pagliani and Battelli, 1884

%	η 0°	η 10°	η 0°	η 10°	
0	1775	1309	1775	1309	
20.35	5365	3363	5368	3368	
29.87	6912	4138	6914	4142	(second
33.82	7201	4209	7203	4213	series)
38.98	7024	4273	7026	4277	
46.00	6722	4236	6724	4240	
56.10	6107	3975	6110	3979	
71.87	1442	3113	4445	3118	
100	1838	1520	1843	1525	

Noack, 1886

t	η 0%	8.71%	16.6%	25.23%	34.58%
0	1811.0	2865.3	4535.1	6459.9	7320.7
5	1523.0	2336.4	3511.1	4864.6	5573.9
10	1307.2	1947.5	2808.2	3784.0	3721.2
15	1140.1	1650.1	2302.4	3024.8	3521.1
20	1006.8	1419.5	1924.9	2470.4	2875.9
25	898.2	1234.7	1635.1	2054.2	2386.4
30	808.2	1084.6	1407.1	1734.2	2003.4
35	732.4	961.0	1224.4	1483.3	1711.4
40	667.6	857.7	1075.5	1282.6	1474.2
45	612.4	770.4	953.0	1120.1	1282.0
50	564.2	696.3	849.8	986.5	1124.6
55	521.8	632.4	763.0	875.3	994.2
60	484.5	577.0	689.0	781.8	884.7
	38.98%	43.99%	49.12%	53.36%	64.64%
0	7320.7	7067.1	6675.5	6321.1	5107.2
5	5573.9	5512.1	5271.7	5017.5	4254.7
10	3721.2	3715.6	4226.6	4046.9	3552.5
15	3521.1	3523.6	3441.2	3316.7	2985.0
20	2875.9	2896.4	2846.5	2758.6	2926.5
25	2336.4	2415.4	2385.3	2324.9	2156.1
30	2003.4	2038.4	2023.9	1982.2	1855.3
35	1711.4	1740.7	1736.3	1707.8	1609.5
40	1474.2	1502.3	1504.3	1485.7	1406.6
45	1282.0	1308.3	1314.6	1302.9	1238.1
50	1124.6	1149.1	1158.2	1151.7	1096.9
55	994.2	1017.0	1027.4	1024.7	977.7
60	884.7	905.8	917.4	917.4	877.0

t	75.75%	87.45%	99.72%
0	4073.2	2940.4	1801.9
5	3443.4	2556.2	1633.8
10	2917.3	2228.7	1480.0
15	2497.5	1950.9	1340.8
20	2152.0	1715.7	1215.9
25	1867.0	1516.8	1104.4
30	1632.4	1347.4	1004.8
35	1436.8	1202.7	916.1
40	1272.6	1078.6	837.3
45	1133.7	971.7	730.6
50	1015.7	879.2	704.6
55	914.4	798.6	650.0
60	827.2	728.3	598.6

Varenne and Godefroy, 1903

vol%	seconds of flow	vol%	seconds of flow
	at room temp.		
0	168	55	502
5	200	60	484
10	226	65	473
15	264	70	442
20	315	75	416
25	366	80	383
30	408	85	348
35	447	90	323
40	460	95	284
45	465	100	228
50	483		

Blanchard, 1904

M	η (water=1)	%	η (water=1)
	25°		
0.0	1.211	0.0	1.000
0.257	.241	8.0	1.352
0.507	.268	39.0	2.628
3.445	.571	46.0	2.650
14.330	2.466	56.1	2.551
		71.9	2.180
		88.0	1.675
		92.3	1.509
		98.8	1.259
		99.4	1.236
		100.0	1.211

Jones, 1904

vol%	η 0°	η 25°	τ.10⁴
0	1778	891	398
25	5264	1810	763
50	6720	2405	717
75	5167	2118	57.5
100	1856	1105	271
	2nd series		
0	1778	891	398
25	5135	1661	837
50	7005	2170	892
75	4996	1935	633
100	2108	1145	337

Dunstan, 1904 and 1905

%	η	%	η
	25°		
0	891.0	55.58	2273
3.60	959.6	55.83	2273
5.09	1013	57.51	2247
12.50	1356	60.15	2243
16.00	1552	60.17	2240
24.66	1851	60.49	2226
29.63	2129	61.06	2212
32.40	2162	65.36	2104
37.39	2290	65.85	2112
38.26	2301	70.54	1995
41.21	2327	73.90	1957
46.17	2368	80.20	1744
47.72	2354	100.00	1113
50.20	2337	100.00	1115

Jones and Mc Master, 1906

%		η 0°	η 25°
0	0	1778	891
	25	5264	1810
	50	6720	2405
	75	5167	2118
	100	1856	1106

Herz and Anders, 1907

%	η(water=1)
25°	
0	1.000
20.18	1.987
40.69	2.612
70.01	2.218
100.00	1.210

Hirata, 1908

vol%	η(alcohol=1)	vol%	η(alcohol=1)
	25°		
75	1.3300	98.4375	1.0808
87.5	.4715	99.21875	1.0412
93.75	.2575	100	1.0000
96.875	.1407		

Pissarjewsky and Karp, 1908

N	η(water=1)
12°	
0.5	1.1080
1	.2338
2	.5301
4	2.2203

Dunstan and Thole, 1909

%	η 20°	η 25°	η 30°
0.00	1002	891	798
20.71	2162	1829	1505
39.65	2789	2343	1936
45.57	2797	2351	1987
61.85	2510	2173	1834
78.09	2004	1804	1530
99.20	1241	1115	990.5

Bingham, White and al., 1913

t	η				
mol%	0	5.90	12.47	24.02	29.82
%	0	13.83	22.71	44.70	52.08
25.00	895.01	1504	2086	2276	2347
30.02	800.20	1298	1759	-	1992
35.02	723.29	1136	1502	1726	1707
40.02	656.50	1001	1300	-	1482
45.02	599.90	889.52	1136	1305	1297
50.02	550.30	798.85	1002	1143	1140
55.01	508.10	721.66	897.34	1114	1014
60.00	473.40	657.67	806.90	905.05	907.02
64.98	436.90	598.40	727.80	814.86	815.39
69.96	407.30	550.40	660.37	736.98	736.98
74.96	380.10	507.60	605.60	671.41	669.79
79.96	356.70	-	545.40	-	610.80

mol%	40.0	50.02	69.91	100
%	63;02	71.90	85.50	100
25.01	2180	1982	1571	1099
30.02	1874	1705	1392	1002
35.02	1637	1492	1243	913.49
40.02	1422	1314	1108	835.77
45.02	1254	1164	1001	765.99
50.02	1104	1040	901.31	701.61
55.01	985.02	929.88	815.99	645.10
60.00	885.26	835.78	741.51	596.0
64.98	798.40	757.97	674.44	551.0
69.96	781.50	688.89	617.30	510.5
74.96	657.89	626.60	569.10	470.0
79.96	596.20	-	-	-

Whightman, Davis and al.,1914

%	η 15°	25°	35°	
100	1292	1054	871	
95	1450	1183	971	
	1530	1227	993	
90	1674	1314	1044	
	1767	1392	1100	
80	2205	1679	1297	
	2232	1701	1316	
70	2625	1913	1428	
	2634	1916	1437	
60	3039	2169	1609	
	3049	2175	1599	
50	3293	2264	1625	
	3333	2315	1662	(two series)
40	3427	2328	1662	
	3421	2318	1643	
30	3177	2115	1599	
	3165	2112	1494	
20	2569	1786	1291	
	2551	1766	1296	
10	1727	1270	975	
	1752	1288	982	
5	1410	1073	847	
	1410	1072	847	
0	1137	895	725	

Mathews and Cooke, 1914

t	η
	45%
0	6933
25	2360
40	1417
55	969.3
70	688.4

Jones, 1915 and al., 1915

vol%	η 15°	25°	35°
0	-	890	-
25	2585	1769	1270
50	3400	2286	1618
75	2762	1997	1537
100	-	1110	-

Herz, 1918

%	η
	25°
0	895
20.18	1778
40.69	2338
70.01	1985
100	1092

Kono, 1923

%	η(water=1)	%	η(water=1)
	15°		
6.16	1.305	40.58	3.013
9.79	.542	50.17	2.939
14.65	.870	60.43	.730
21.92	2.387	68.29	.460
27.37	.707	83.95	1.799
30.50	.843	94.48	.373
33.74	.929	99.80	.158

Springer and Roth, 1930

%	η(water 0°=1)	%	η(water 0°=1)
	25°		
0.0	0.5552	47.72	1.3230
12.5	0.8095	57.51	.2966
32.4	1.2136	70.54	.1450
37.39	.2610	100.00	.6565
41.21	.3220		

Lemonde, 1936 (fig.)

mol%	η	mol%	η
10°			
0	1300	75	3400
1	1400	92.5	2160
21	3190	98	1640
40	4230	100	1450
62.5	4110		

mol%	η	mol%	η
18°			
0	1045	89	1860
1	1100	99	1300
20	2620	100	1240
59	3000		

Spells, 1936

%	η	%	η
10°			
0	1308	60	3770
10	2179	70	3268
20	3165	80	2710
30	4050	90	2101
40	4390	100	1466
50	4180		

Dolian and Briscoe, 1937

mol%	η	mol%	η
25.00°			
100	1070	31.5	2280
85.3	1290	17.0	2270
69.8	1530	7.1	1500
55.1	1820		

Silgardo and Starrow, 1950

mol%	η at b.t.	η 100°	mol%	η at b.t.	η 100°
0.0	12.55	12.55	69.8	11.16	11.83
9.0	12.51	12.58	83.4	10.88	11.63
17.4	12.33	12.52	91.9	10.77	11.39
25.7	12.20	12.38	96.8	10.70	11.14
37.4	11.84	12.26	100.0	10.16	10.80
54.0	11.49	11.97			

Franke, 1932

mol%	diff.ratio (cm^2/day)	mol%	diff.ratio (cm^2/day)
20°			
0.48	0.823	7.13	0.383
1.04	.800	7.71	.341
1.72	.773	8.22	.310
2.17	.736	8.76	.306
2.70	.700	9.30	.302
3.28	.664	9.86	.296
3.89	.608	10.38	.289
4.34	.571	10.95	.321
4.89	.537	11.46	.360
5.45	.501	11.95	.405
6.19	.466	12.53	.457
6.56	.408	13.09	.725

Lemonde, 1938

vol%	D	vol%	D
10°		18°	
1	0.84	1	1.09
21	.57	29	0.62
40	.31	59	0.32
62.5	.21	89	0.82
75	.30	99	1.10
92.5	.66		
98	.85		

Van Velden, Van der Voort and Gorter, 1946

%	Soret coeff. $\cdot 10^4$	Dtherm. $\cdot 10^8$	D
20	+7.2	+1.5	+2.1
28	0	0	-
36	-7.0	-1.1	+1.6
43	-11.0	-1.7	+1.5[5]
52	-9.9	-1.9	+1.9
64	-6.4	-1.5	+2.4

Hammond and Stokes, 1953

c 1	c 2	D	c 1	c 2	D
0.936	0.0	1.214	8.544	0.904	1.093
1.062	0.0	.220	8.332	.894	.091
1.873	0.0	.205	9.576	.873	.084
4.011	0.633	.167	8.447	1.352	.084
4.163	0.503	.165	9.227	0.845	.079
5.074	0.755	.136	13.340	1.747	.004
8.024	1.143	.101	17.110	2.268	0.951
17.65	1.775	0.950	55.96	36.06	0.378
26.19	1.645	.853	62.98	35.84	.406
25.53	2.160	.852	63.35	35.50	.404
33.63	2.506	.754			
34.57	1.868	.752	69.02	62.43	0.589
			69.23	62.25	.575
43.34	32.35	0.396	74.04	61.83	.675
43.54	32.18	.399	74.32	61.61	.684
49.41	35.96	.368	77.15	70.62	.927
49.66	35.73	.362	77.34	68.33	.885
51.19	30.37	.395	77.49	72.28	.980
51.52	30.12	.393	77.59	70.44	.950
55.58	36.36	.379	77.71	72.10	.971

1 and 2 = c on two sides of the diaphragme .

Tichacek, Kmak and Drickamer, 1956

mol%	D
25°	
11.6	+0.29
27.4	-0.90
41.8	-1.47
73.4	-0.93
85.5	-0.50

Musculus, 1865

%	capillary rise	%	capillary rise
15°			
0	1.000	16	0.628
2	0.904	18	.605
4	.842	20	.583
6	.780	22	.564
8	.743	24	.545
10	.706	26	.527
12	.678	28	.509
14	.651	30	.495

Rodenbeek, 1879

d	σ	d	σ
17.5°			
0.800	22.74	0.940	32.57
.840	25.08	.950	34.91
.860	26.40	.960	37.06
.880	27.74	.970	43.64
.900	28.94	.980	48.85
.920	30.43	.998	71.68
.930	30.93		

Traube, 1885

%	σ	%	σ
15°			
1.96	63.40	15.25	42.33
3.85	57.28	16.67	40.96
5.66	54.30	23.08	36.51
7.41	51.62	28.57	33.56
9.09	49.03	33.33	31.79
10.71	47.02	37.50	30.51
12.28	45.12	44.44	29.13
13.79	43.77	61.54	22.45

Weinstein, 1889

%	σ	%	σ (second series)
15°			
0	71.80	0	72.2
4.08	60.94	10	51.2
7.65	55.49	20	40.6
9.94	52.36	30	34.7
12.37	47.96	40	31.2
17.50	44.09	50	29.1
20.07	40.80	60	27.7
33.57	33.43	70	26.6
35.24	32.12	80	25.4
53.08	28.73	90	24.1
62.43	27.07	100	22.5
74.94	25.59		
88.25	23.79		
100.00	22.42		

Sohet, 1898

t	σ	t	σ
0%		36.497%	
16	72.33	17.50	28.83
38.75	69.61	37.50	27.99
72.50	64.43	96	24.66
111	58.14	110.50	24.06
134	53.54	136	22.30
150.50	50.16	152	21.27
20.87%		50.329%	
17	37.69	18.50	26.10
63	34.97	40	25.41
86	33.46	75	23.47
103.50	32.24	105.50	22.50
120.75	31.13	116	20.92
146.50	29.11	142.50	18.79
27.098%		100%	
18	34.41	20	21.19
45	33.02	44.50	29.27
72	31.68	74	18.39
120.50	28.56	101	16.31
146	26.71	133.50	13.09
32.653%			
16	30.58		
65	28.07		
89	26.68		
110.50	25.39		
135	23.90		
145.75	23.14		

Descudé, 1903

vol%	σ	vol%	σ
	15°		
0	73.60	60	28.20
10	51.70	70	27.05
20	42.28	80	25.94
30	36.15	90	24.65
40	32.00	100	22.62
50	29.70		

Grunmach, 1912

%	t	σ	%	t	σ
10.0	20.54	46.0	59.8	19.47	25.1
20.1	19.19	36.2	69.9	18.44	23.6
30.0	19.77	32.0	80.1	18.48	23.0
39.81	18.93	28.3	89.8	18.50	21.0
50.0	19.02	25.9			

Morgan and Neidle, 1913

%	σ	%	σ
	30°		
0.000	71.030	34.89	29.297
0.979	65.600	50.00	26.521
2.143	60.847	60.04	25.352
4.994	53.137	71.85	24.198
10.385	44.668	75.06	23.850
17.979	37.311	84.57	22.813
25.000	32.941	95.57	21.348
29.980	30.818		

t	σ 0%	25%	50%	75%	95.57%	100%
0	75.49	36.455	28.391	26.157	23.681	23.090
10	74.01	35.186	27.768	25.406	22.915	22.312
20	72.53	34.014	27.145	24.654	22.150	21.534
30	71.03	32.940	26.522	23.903	21.384	20.756

Reinhold, 1913

t	σ	t	σ
	0 %		
0	86.1	45	82.6
2	86.7	50	78.0
4	80.6	55	74.4
9.5	86.6	60	72.3
20	88.2	65	70.4
25	85.1	70	72.9
30	83.0	75	71.7
35	81.3	80	69.1
40	83.7	85	64.3
	10 %		
5	53.9	60	43.2
20	51.2	65	41.9
40	46.8		
	30 %		
4	37.7	60	30.5
20	34.9	65	29.5
40	32.4		
	50 %		
0	32.1	60	26.1
20	30.1	65	25.4
40	28.2		
	70 %		
0	28.7	60	23.4
20	27.1	65	22.6
40	25.5		
	94 %		
-10	26.6	40	21.4
- 5	25.5	60	19.8
+ 1	24.1	65	19.0
20	23.3		

Fürth, 1920

vol%	σ	vol%	σ
25°			
100	21.30	40	31.88
98	23.13	32.7	34.24
95	23.73	25	27.50
90	24.14	16	41.30
75	25.76	10.8	44.91
63.5	26.83	3.5	57.72
50	28.74	0	71.78

Bircumshaw, 1922

%	σ	%	σ
25°			
0	72.90	59.58	26.71
2.72	60.79	68.94	25.71
5.21	54.87	77.98	24.73
11.10	46.03	87.92	23.64
20.50	37.53	92.10	23.18
30.47	32.25	97.00	22.49
40.00	29.63	100.00	22.03
50.22	27.89		

Butler and Whightman, 1932

mol%	σ	mol%	σ
25°			
0	71.97	30	27.60
2	55.57	40	26.43
4	47.86	50	25.43
6.4	42.12	60	24.67
10	36.79	70	23.93
12	34.42	80	23.29
15	32.20	90	22.59
20	29.97	100	21.93
25	28.49		

Ernst, Wathuis and Ruwe, 1936

%	σ	%	σ
25°			
0	72.0	60	26.9
10	46.6	70	26.1
20	37.7	80	25.2
30	32.3	90	24.4
40	29.6	100	22.0
50	28.3		

Valentiner and Hohls, 1938

t	σ	
	0 vol %	5 vol %
20	72.72	58.11
22	-	57.82
30	70.95	56.55
40	69.19	54.88
50	67.52	53.31
	10 vol %	24 vol %
20	51.25	37.93
22	50.96	37.73
30	49.78	36.75
40	48.22	35.47
50	46.75	34.30
	34 vol %	48 vol %
20	33.22	30.09
23	32.93	-
30	32.34	29.50
40	31.56	28.91
50	30.67	28.22
	60 vol %	72 vol %
20	27.54	26.26
30	26.85	25.58
40	26.17	24.89
50	25.48	24.11
	80 vol %	96 vol %
20	24.70	23.03
30	24.01	22.15
40	23.32	21.36
50	22.54	20.38

Brun, 1931

%	σ	%	σ
20°			
100.00	23.34	44.80	30.18
88.22	24.43	33.26	33.12
79.66	25.34	20.25	40.64
66.52	26.96	11.28	47.52
49.85	29.05	0.00	73.00

Teitelbaum, Gortalova and Sidorova, 1951

mol %	σ				
	-10°	-5°	0°	+5°	10°
0	-	-	75.70	74.96	74.27
0.18	-	-	72.81	72.16	71.31
0.26	-	-	72.09	71.31	70.65
0.35	-	72.29	71.70	70.78	70.00
1.2	-	66.65	65.87	65.08	64.16
1.8	-	63.22	62.44	61.52	60.39
3.5	-	56.29	54.94	53.81	52.68
7.3	47.29	46.37	45.31	44.32	43.40
11.3	39.29	38.30	37.52	36.96	36.32
17.2	33.70	33.35	33.06	32.64	32.28
31.6	30.09	29.81	29.38	29.03	28.67
56.1	27.90	27.54	27.04	26.69	26.41
74.5	26.50	26.11	25.67	25.26	24.86
100.0	24.88	24.49	23.94	23.64	23.17
	15°	20°	25°	30°	35°
0	73.51	72.75	71.98	71.21	70.37
0.18	70.58	69.86	69.08	68.22	67.57
0.26	70.13	69.27	68.55	67.76	67.17
0.35	69.34	68.81	67.90	67.17	66.33
1.2	63.37	62.58	61.73	61.00	60.35
1.8	59.47	58.55	57.70	59.96	56.26
3.5	51.75	50.83	50.06	49.21	48.57
7.3	42.34	41.35	40.71	39.93	39.01
11.3	35.47	35.12	34.55	33.91	33.42
17.2	31.86	31.36	31.01	30.66	30.30
31.6	28.25	27.97	27.68	27.19	26.97
56.1	25.98	25.70	25.13	24.85	24.43
74.5	24.46	23.88	23.55	23.22	22.76
100.0	22.78	23.32	21.86	21.54	21.00
	40°	45°	50°	55°	60°
0	69.52	68.76	67.92	67.05	66.18
0.18	66.85	66.12	65.53	64.75	64.16
0.26	66.45	65.80	64.88	64.16	63.50
0.35	65.73	64.94	64.09	63.57	62.98
1.2	59.76	59.10	58.38	57.86	57.33
1.8	55.57	55.02	54.33	53.71	53.24
3.5	47.79	47.29	46.59	46.16	45.56
7.3	38.51	37.88	37.52	36.89	36.39
11.3	33.06	32.57	32.14	31.75	31.44
17.2	29.81	29.74	29.45	28.82	28.32
31.6	26.48	26.27	25.84	25.70	25.28
56.1	24.07	23.72	23.22	22.87	21.37
74.5	22.44	22.04	21.58	21.12	20.80
100.0	20.69	20.23	19.84	19.38	18.99

Optical and electrical properties

Landolt, 1865

%	n_D
	20°
0	1.3324
25.6	.3500
50.7	.3609
74.9	.3635
100	.3606

van der Willigen, 1869

spectral lines	n 98.9%	86.8%	53.9%	38.8%	0%
			23°		
A	1.35700	1.35955	1.35729	1.35284	1.32865
a	.35768	.36040	.35811	.35363	.32948
B	.35824	.36097	.35874	.35427	.33015
C	.35890	.36163	.35943	.35499	.33086
D	.36070	.36343	.36127	.35686	.33273
E	.36299	.36571	.36359	.35921	.33497
b	.36338	.36615	.36402	.35963	.33540
F	.36494	.36773	.36560	.36116	.33686
G	.36700	.36981	.36769	.36319	.33878
G	.36867	.37153	.36932	.36483	.34029
H	.36939	.37223	.37001	.36549	.34194
H	.37055	.37336	.37116	.36664	.34198
H	.37193	.37473	.37250	.36795	.34319

Hess, 1905

%	n_F 15°	20°	25°	30°
0	1.33775	1.33739	1.33684	1.33624
20.750	.35169	.35075	.34969	.34888
40.890	.36337	.36164	.36019	.35880
59.984	.36877	.36703	.36526	.36355
79.989	.37125	.36934	.36740	.36557
100.000	.36906	.36757	.36557	.36351

Leach and Lythgoe, 1905

%	n_D	%	n_D
	20°		
0	1.33299	51	1.36149
1	.33358	52	.36174
2	.33420	53	.36195
3	.33478	54	.36217
4	.33540	55	.36238
5	.33601	56	.36256
6	.33671	57	.36277
7	.33739	58	.36294
8	.33812	59	.36312
9	.33881	60	.36347
10	.33949	61	.36363
11	.34018	62	.36377
12	.34086	63	.36394
13	.34158	64	.36405
14	.34226	65	.36420
15	.34292	66	.36433
16	.34369	67	.36443
17	.34445	68	.36454
18	.34519	69	.36464
19	.34594	70	.36471
20	.34669	71	.36478
21	.34739	72	.36485
22	.34809	73	.36492
23	.34884	74	.36499
24	.34954	75	.36499
25	.35025	76	.36496
26	.35091	77	.36496
27	.35158	78	.36492
28	.35224	79	.36489
29	.35286	80	.36485
30	.35352	81	.36482
31	.25403	82	.36478
32	.35450	83	.36475
33	.35501	84	.36468
34	.35547	85	.36457
35	.35599	86	.36447
36	.35638	87	.36436
37	.35678	88	.36427
38	.35718	89	.36416
39	.35757	90	.36405
40	.35797	91	.36387
41	.35833	92	.36366
42	.35869	93	.36336
43	.35901	94	.36312
44	.35937	95	.36284
45	.35973	96	.36252
46	.36002	97	.36217
47	.36031	98	.36181
48	.36063	99	.36145
49	.36092	100	
50	.36120		

Chèneveau, 1907

%	n_D	%	n_D
	22°		
0	1.3328	54.29	1.3612
8.15	.3379	64.85	.3631
16.50	.3439	75.98	.3638
25.31	.3498	87.68	.3635
34.52	.3548	100.00	.3604
44.16	.3587		

Race, 1908

%	n_D	%	n_D
	15.5°		
0	1.33350	55	1.36421
5	.33645	60	.36506
10	.34001	65	.36573
15	.34368	70	.36629
20	.34737	75	.36675
25	.35112	77	.36686
30	.35471	80	.36675
35	.35757	85	.36634
40	.35960	90	.36589
45	.36136	95	.36524
50	.36306	100	.36444

Andrews, 1908

%	n_D	%	n_D
	25°		
100	1.35941	86	1.36290
99	.35984	85	.36297
98	.36024	84	.36305
97	.36061	83	.36312
96	.36094	82	.36319
95	.36125	81	.36326
94	.36153	80	.36331
93	.36178	79.3	.363315
92	.36200	79	.363313
91	.36221	78	.363302
90	.36239	77	.363286
89	.36255	76	.363265
88	.36269	75	.363239
87	.36280	74	.363208
		70	.363038

Doroshevski and Dvorzhanchik, 1908

%	n Li	n Tl	n D
		15°	
0	1.33126	1.33531	1.33345
10	.33800	.34210	.34020
20	.34550	.34958	.34778
30	.35245	.35653	.35470
40	.35725	.36132	.35948
46	.35950	.36360	.36170
50	.36070	.36482	.36290
55	.36184	.36589	.36405
60	.36283	.36693	.36505
65	.36367	.36771	.36586
70	.36423	.36836	.36645
75	.36457	.36867	.36676
80	.36468	.36883	.36690
85	.36457	.36865	.36678
90	.36410	.36810	.36626
95	.36295	.36700	.36518
100	.36118	.36516	.36332

%	n_D 17.5°	20°	22°	24°
0	1.33320	1.33297	1.33279	1.33258
1.55	.33414	.33389	.33370	.33348
2.92	.33503	.33478	.33458	.33437
4.23	.33590	.33566	.33547	.33527
6.35	.33733	.33707	.33686	.33665
8.35	.33873	.33845	.33822	.33798
9.27	.33940	.33912	.33889	.33864
12.44	.34173	.34141	.34113	.34087
14.00	.34287	.34251	.34222	.34193
17.04	.34515	.34478	.34446	-
22.17	.34895	.34845	.34806	.34766
25.24	.35120	.35063	.35017	.34973
29.22	.35371	.35309	.35257	.35206
30.25	.35427	.35363	.35312	.35259
33.63	.35602	.35529	.35472	.35414
38.33	.35815	.35739	.35678	.35620
39.35	.35851	.35777	.35716	.35656
44.67	.36045	.35962	.35900	.35833
45.93	.36087	.36002	.35934	.35869
48.35	.36159	.36074	.36008	.35937
50.00	.36203	.36116	.36045	.35979
54.93	.36323	.36231	.36159	.36088
59.95	.36328	.36420	.36254	.36181
64.96	.36401	.36496	.36325	.36251
69.96	.36453	.36553	.36375	.36297
74.99	.36482	.36584	.36401	.36323
80.00	.36488	.36588	.36409	.36330
85.05	.36472	.36572	.36390	.36310
90.02	.36419	.36521	.36337	.36252
94.73	.36319	.36421	.36238	.36156
100.00	.36129	.36230	.36049	.35966

%	n_D 10°	15°	%	n_D 10°	15°
4.47	1.33686	1.33640	28.82	1.35502	1.35393
9.67	.34043	.33995	32.25	.35710	.35586
12.88	.34286	.34235	35.75	.35903	.35772
15.79	.34514	.34452	38.54	.36030	.35892
17.09	.34627	.34554	41.01	.36140	.35988
18.80	.34764	.34683	43.00	.36216	.36064
21.20	.34962	.34872	46.70	.36346	.36191
24.00	.35153	.35061	50.62	.36447	.36286
26.81	.35340	.35233			

Sidersky, 1910

%	n_D	%	n_D
	27.5°		
0	1.33320	30	1.35043
1	.33367	40	.35565
2	.33416	50	.35953
3	.33466	59.23	.36229
4	.33517	60	.36248
5	.33568	70	.36448
10	.33843	80	.36565
20	.34441	85.69	.36587

Elsey and Lynn, 1923

%	n_D 25°	30°	%	n_D 25°	30°
28.42	1.35123	1.35000	13.94	1.34181	1.34411
27.74	.35086	.34474	11.44	.34001	.33934
25.43	.34961	.34847	9.50	.33864	.33807
23.16	.34818	.34718	7.67	.33739	.33679
21.57	.34709	.34609	5.62	.33604	.33550
19.43	.34566	.34476	3.95	.33498	.33444
17.42	.34428	.34342	2.44	.33402	.33351
15.32	.34276	.34204			

Bennett and Garratt, 1925

d	n_D	d	n_D
	20°		
0.7953	1.3618	0.9508	1.3545
.8152	.3635	.9580	.3523
.8325	.3643	.9646	.3492
.8491	.3650	.9698	.3460
.8648	.3648	.9749	.3432
.8767	.3640	.9801	.3400
.8890	.3633	.9855	.3370
.9012	.3623	.9894	.3350
.9123	.3615	.9919	.3341
.9230	.3600	.9938	.3335
.9331	.3585	.9948	.3333
.9427	.3565		

Barbaudy, 1926

%	n_D	%	n_D
	25°		
100.00	1.3592	50.00	1.3596
89.97	.3620	40.00	.3565
79.98	.3629	30.00	.3514
73.46	.3628	20.00	.3460
70.00	.3626	10.00	.3388
60.00	.3617	0.00	.3323

Schoorl, 1929

%	n_D	%	n_D
	17.5°		
0	1.33320	62.23	1.36470
30.12	.35412	80.35	.36603
40.17	.35885	99.86	.36245
50.21	.36215		

Herz, 1930

%	n_F
15°	
20.750	1.35169
40.890	.36337
59.984	.36877
79.989	.37125

Macoun, Field, and al., 1931

%	n_{5893}		
	15°	18°	19°
39.50	1.36906	1.35842	1.34812
39.60	.36910	.35844	.35814
39.70	.36914	.35847	.35817
39.80	.36917	.35849	.35819
39.90	.36921	.35851	.35822
40.00	.36925	.35854	.35824
40.10	.36929	.35856	.35827
40.20	.36933	.35858	.35829
40.30	.36937	.35861	.35832
40.40	.36941	.35863	.35834
40.50	.36945	.36865	.35837
	20°	21°	22°
39.50	1.35782	1.35754	1.35726
39.60	.35784	.35756	.35728
39.70	.35786	.35758	.35730
39.80	.35789	.35761	.35732
39.90	.35791	.35763	.35734
40.00	.35793	.35765	.35736
40.10	.35796	.35768	.35738
40.20	.35798	.35770	.35740
40.30	.35801	.35772	.35742
40.40	.35803	.35775	.35744
40.50	.35805	.35777	.35746

$d^{(15.6°)}$	n_{5893}		
	15.6°	18°	19°
0.9373	1.36942	1.35861	1.35831
.9375	.36944	.35869	.35839
.9376	.36942	.35867	.35838
.9378	.36939	.35867	.35833
.9380	.36937	.35865	.35836
.9382	.36933	.35857	.35827
.9384	.36931	.35859	.35828
.9386	.36926	.35848	.35818
.9388	.36918	.35851	.35821
.9392	.36907	.35841	.35812
	20°	21°	22°
0.9373	1.35804	1.35775	1.35747
.9375	.35811	.35781	.35751
.9376	.35808	.35779	.35748
.9378	.35805	.35772	.35742
.9380	.35808	.35779	.35749
.9382	.35799	.35769	.35739
.9384	.35800	.35770	.35741
.9386	.35788	.35769	.35728
.9388	.35791	.35762	.35733
.9392	.35782	.35751	.35723

Brun, 1931

%	n_D	%	n_D
	20°		
0.00	1.3330	47.28	1.3604
4.206	.3348	52.15	.3612
5.16	.3355	65.69	.3640
9.51	.3392	69.24	.3623
10.65	.3392	74.70	.3648
15.80	.3440	80.18	.3648
19.05	.3448	83.20	.3622
20.09	.3454	90.45	.3634
30.20	.3523	92.20	.3631
31.22	.3530	95.70	.3618
39.45	.3572	99.00	.3614
41.97	.3585	99.08	.3615

Scott, jr, 1946

%	n_D	%	n_D
	25°		
99.73	1.35923	68.39	1.36251
99.53	.35926	66.58	.36235
98.94	.35958	65.56	.36226
98.57	.35967	62.13	.36178
98.46	.35970	62.07	.36178
97.76	.35996	59.13	.36125
97.52	.36005	56.02	.36074
96.91	.36011	53.53	.36027
96.23	.36037	52.42	.36002
96.06	.36049	49.10	.35923
94.90	.36065	48.14	.35892
93.26	.36093	43.96	.35780
92.49	.36134	42.59	.35736
90.24	.36156	41.50	.35692
89.83	.36188	38.97	.35610
88.16	.36200	35.25	.35462
88.03	.36226	33.34	.35374
86.57	.36226	30.59	.35248
86.52	.36238	30.64	.35248
85.00	.36245	29.52	.35187
84.80	.36260	27.22	.35057
84.42	.36260	25.13	.34935
83.27	.36267	23.75	.34852
81.47	.36276	22.94	.34798
80.82	.36282	20.83	.34657
80.57	.36289	20.84	.34660
79.78	.36292	19.66	.34590
78.85	.36295	17.86	.34455
77.62	.36292	14.25	.34199
77.34	.36298	10.46	.33936
76.76	.36289	9.39	.33858
76.63	.36292	8.97	.33825
75.59	.36292	6.56	.33658
74.21	.36289	4.80	.33549
73.64	.36289	4.83	.33546
72.47	.36276	2.05	.33374
70.84	.36270	0.86	.33300
68.79	.36257	0.00	.33252

Nernst, 1893

%	ε
20°	
99.8	25.6
98.7	26.6
93.0	28.4
81.1	34.3
57.1	44.2

Thwing, 1894

%	ε	%	ε
	15°		
0	75.50	55	39.93
5	72.30	60	36.31
10	67.95	65	34.60
15	65.36	70	33.66
20	61.79	72	33.86
25	60.21	75	30.30
30	59.55	80	28.15
32	55.20	85	26.58
35	50.52	90	25.71
40	48.40	95	25.27
46	48.40	99.8	25.02
50	44.11		

Fleming and Dewar, 1897

t	ε		t	ε
	39%			
-198.5	3.06	C	-128.2	47.7
-145.0	36.6	L	-125.2	51.2
-140.2	41.8		-122.0	54.1
-133.7	46.0		-117.3	56.7

Fürth, 1923

vol%	ε	vol%	ε
	20°		
0	80.5	60	46.5
20	68.5	80	35.5
40	57.7	100	26.0

Salazar, 1924

%	ε	%	ε
	25°		
0.000	81.12	60.041	51.23
4.999	78.53	64.966	47.79
10.014	76.63	70.000	45.78
15.016	73.81	70.020	45.93
20.011	72.14	74.906	44.56
25.018	69.49	75.045	44.06
30.018	68.05	79.734	42.01
33.893	66.53	80.013	41.45
40.037	63.30	84.512	39.94
44.967	60.58	84.991	39.29
45.149	60.11	89.907	38.10
49.986	56.85	93.489	36.63
50.061	56.85	95.097	35.04
50.501	57.29	99.166	33.55
54.954	54.03		

Remesow and Tavaststjerna, 1930

vol%	ε	vol%	ε
	20°		
0	80.5	60	46.4
10	74.2	80	36.2
20	68.6	100	26.0
40	58.0		

Rock and Klosky, 1930

%	ε	%	ε
	25°		
0	81.12	25.299	64.58
8.378	75.56	34.864	57.86
15.497	70.66	41.076	53.69

Wyman, jr., 1931

%	ε						
	40°	30°	25°	20°	10°	0	-5°
0	73.27	76.75	78.54	80.37	84.13	88.03	90.04
8.0	68.82	72.15	73.89	75.67	79.45	83.4(	85.5(
16.2	64.42	67.72	69.47	71.23	75.02	79.08	81.22
24.6	59.57	62.73	64.45	66.17	69.91	73.93	76.05
33.3	54.64	57.62	59.16	60.90	64.47	68.33	70.38
42.4	49.13	51.91	53.44	54.97	58.30	61.92	63.83
52.1	43.87	46.33	47.70	49.06	52.03	55.30	57.01
62.0	38.27	40.53	41.76	42.99	45.64	48.49	50.00
73.5	32.62	34.64	35.72	36.81	39.13	41.62	42.92
85.7	27.24	29.01	29.95	30.89	32.86	34.93	36.26
100.0	21.97	23.50	24.28	25.07	26.68	28.32	29.17

Graffunder and Heymann, 1931

mol%	ε	mol%	ε
	25°		
100	24.69	48.06	37.75
88.10	26.93	31.63	46.55
78.00	28.84	20.16	56.25
69.34	30.80	9.33	67.55
55.21	34.94	5.16	72.35
		0.00	79.45

Åkerlöf, 1932

%	ε				
	20°	40°	50°	60°	80°
0	80.37	73.12	69.85	66.62	60.58
10	74.60	67.86	64.33	61.49	55.70
20	68.66	62.41	59.22	56.40	50.81
30	62.63	56.73	53.79	51.04	45.88
40	56.49	51.08	48.36	45.80	40.93
50	50.38	45.30	42.92	40.66	36.51
60	44.67	40.02	37.72	35.66	31.82
70	39.14	34.88	32.86	30.87	27.30
80	33.89	29.83	28.10	26.31	23.20
90	29.03	25.64	24.08	22.51	19.80
100	25.00	22.20	20.87	19.55	-

Martin and Brown, 1938

mol%	ε				
	20°	25°	40°	55°	75°
90	26.66	25.53	23.60	21.41	19.20
80	28.60	27.70	25.25	23.00	20.61
70	31.13	30.23	27.45	24.99	22.28
60	34.23	33.35	30.20	27.46	24.53
50	38.20	37.15	34.00	30.90	27.50
40	43.10	41.75	38.60	35.00	31.25
30	49.50	47.85	44.33	40.21	36.10
20	57.30	55.70	51.67	47.50	42.90
10	67.35	65.50	61.27	56.64	51.30
0	80.37	78.48	73.12	68.13	61.18

Pfeiffer, 1885

%	$\tau.10^4$	κ	
		0°	15°
0	361	14070	21530
2.14	369	14370	22320
5.24	423	14490	23710
8.50	438	14250	23640
13.96	481	13650	23480
22.60	576	12100	22540
26.52	569	11930	22090
31.19	613	11790	22630
45.38	550	12860	23640
52.49	539	13910	25710
62.20	466	15910	26710
62.31	475	16190	27300
69.85	409	17740	28620
73.12	395	18260	29070
77.09	341	19970	30180
83.37	286	21240	30360
87.59	276	20880	29540
91.78	261	20440	28430
95.94	233	20340	27450
99.28	198	19760	25630

Perkin, 1891

50 mol% 19.4° $(\alpha)_{magn.}$ = 0.9219

Schönrock, 1895

34.923% 17.2° $(\alpha)_{magn.}$ = 1.0340

Thouvenot, 1910

%	$(\alpha)_{magn.}$	%	$(\alpha)_{magn.}$
	25°		
0	4.815	50.33	4.597
7.542	.796	62.76	.477
14.94	.762	69.54	.432
20.43	.740	79.50	.332
30.04	.729	88.98	.256
41.59	.659	100	.095

Scharf, 1932

vol %	$\alpha^{5893\,Å}_{magn.}$	vol %	$\alpha^{5893\,Å}_{magn.}$
	16°		
0	2.146	59.57	2.051
9.94	.128	69.49	2.013
19.88	.122	79.40	1.980
29.81	.120	89.30	.936
39.73	.108	99.21	.866
49.66	.076	100.00	.854

Ranganadham, 1931

%	$(\alpha)_{magn}$	%	$(\alpha)_{magn.}$
	at room temp.		
0	0.7200	56.94	0.7408
30.00	.7331	67.40	.7440
40.63	.7375	83.40	.7435
46.30	.7427	100.00	.7430

Stephens and Evans, 1927

%	t	Verdet's constant 2753 Å	Verdet's constant 3363 Å
0	12.2	0.0812	0.0475
10	12.3	.0793	.0465
20	12.3	.0765	.0463
30	13.4	.0756	.0461
40	11.9	.0751	.0459
50	12.3	.0749	.0460
60	12.3	.0752	.0458
70	13.0	.0747	.0456
80	12.5	.0724	.0437
90	12.5	.0695	.0415
94.4	12.5	.0682	.0405
96.7	11.8	.0673	.0403
99.4	12.5	.0670	.0400

Mikhailov, 1940

vol%	sound velocity (m/sec.)	vol%	sound velocity (m/sec.)
	at room temp.		
0	1472	60	1513
15	1574	75	1403
30	1630	90	1298
45	1597	100	1225

Jacobsón, 1951

vol%	sound velocity (m/sec.)	vol%	sound velocity (m/sec.)
	-20°		
0	1486.1	58.9	1478.8
9.9	1549.1	68.6	1417.5
19.3	1604.6	79.1	1339.9
31.3	1629.8	89.6	1270.3
39.1	1602.5	100.0	1168.2
48.7	1547.0		

Heat constants.

Bussy and Buignet, 1857

%		U
	18.5°	
0		1
46		0.9047
100		0.5790

Schnidaritsch, 1859

vol%	U	vol%	U
	at room temp.		
0	1.0011	60	0.8456
10	0.9897	70	.8198
20	.9829	80	.7784
30	.9732	90	.7178
40	.9482	100	.6219
50	.9230		

Jamin and Amaury, 1870

t	U	t	U
100%		34%	
20.92	0.660	17.75	1.090
24.90	.663	16.25	.382
28.85	.674	18.95	.093
32.55	.685	24.57	.106
36.15	.692	27.45	.110
39.52	.702	30.25	.117
44.15	.718	32.90	.124
45.70	.722	35.12	.128
48.62	.728	37.30	.133
		39.57	.143
		41.87	.150
84%		17%	
18.52	0.744	14.70	1.089
22.35	.757	17.27	.093
25.87	.780	19.67	.092
29.35	.796	22.20	.096
32.70	.809	24.87	.094
35.75	.822	27.60	.099
34.12	.816	30.10	.103
37.02	.823	32.45	.112
40.00	.832		
42.75	.841		
45.60	.848		

%	U	%	U
	0°		
0	1.000	50	0.940
8.4	.060	67	.840
17	.065	84	.720
25	.055	100	.580
34	.030		

Schüller, 1871

%	U	%	U
	at room temp.		
0	1	49.93	0.9096
14.90	1.0391	54.09	.8826
20.00	.0456	54.45	.8793
22.56	.0436	58.17	.8590
23.56	.0354	73.90	.7771
35.22	.0076	83.00	.7168
44.35	0.9610	100	.6120
49.46	0.9162		

Winkelmann, 1873 and 1907

%	U	temp. limit	U	temp. limit
10	1.0350	8.4 - 32.9	1.0235	23.8 - 32.9
20	.0543	12.1 - 36.0	.0482	26.7 - 36.0
30	.0380	14.0 - 36.1	.0434	27.9 - 36.1
40	0.9898	14.4 - 36.2	.0015	25.5 - 36.2
50	.9272	12.7 - 34.6	0.9397	24.6 - 34.6
60	.8683	11.7 - 34.4	.8837	23.9 - 34.4
70	.8042	10.7 - 33.1	.8240	22.4 - 33.1
80	.7413	8.4 - 32.0	.7529	21.4 - 32.0
90	.6750	6.3 - 30.3	.6837	18.8 - 30.3

Zetterman, 1881

%	U	%	U
	20°		
0	1	30	1.012
10	1.052	40	0.946
20	1.043	50	0.878

Blümcke, 1885

%	U				
	0-15°	0-30°	0-45°	0-54°	0-98°
0	1.022	1.012	1.009	1.011	1.013
1.4	1.034	1.019	-	1.020	-
5.5	1.066	1.037	-	1.042	-
11.4	-	-	1.055	-	1.089
14.9	1.116	1.069	-	1.071	-
20.1	1.107	1.070	-	1.071	-
20.8	-	-	1.065	-	1.102
24.8	-	-	1.054	-	1.036
28.3	-	-	1.038	-	1.072
29.6	1.057	1.036	1.036	1.042	-
47.5	0.940	0.922	0.920	0.954	0.964
78.6	.717	.718	.725	.758	.792
99.3	.569	.579	.595	.630	.683

Ilges, 1885

%	U	%	U
	at room t.		
0	1	49.93	0.9096
14.90	1.0391	54.09	0.8826
20.00	1.0456	54.45	0.8793
22.56	1.0436	58.17	0.8590
28.56	1.0354	73.90	0.7771
35.22	1.0076	83.00	0.7168
44.35	0.9610	100.00	0.6134
49.46	0.9162		

Magie, 1901

mol %	U	mol %	U
	at room t.		
7.41	1.0509	0.50	1.0026
1.96	1.0194	0.33	1.0009
0.99	1.0074		

Bose, 1907

%	U 0.5°-5°	U 20.1°-26°	U 39°-42.5°
0	1.005	0.999	0.999
5	1.026	1.007	1.012
10	1.042	1.017	1.022
15	1.045	1.025	1.027
20	1.037	1.028	1.028
25	1.019	1.023	1.024
30	0.998	1.009	1.014
35	0.971	0.992	0.999
40	0.934	0.971	0.979
45	0.896	0.945	0.952
50	0.863	0.917	0.917
55	0.832	0.886	0.886
60	0.802	0.855	0.859
65	0.772	0.822	0.836
70	0.741	0.788	0.814
75	0.710	0.756	0.789
80	0.679	0.723	0.760
85	0.648	0.693	0.729
90	0.615	0.660	0.696
95	0.582	0.623	0.660
100	0.544	0.579	0.609

Doroshevskii and Rakovskii, 1908

%	U	%	U
	22°-99°		
0.00	1.0067	54.93	0.9296
5.02	1.0169	59.95	0.9079
10.04	1.0300	64.96	0.8859
15.00	1.0422	69.96	0.8603
20.09	1.0440	74.99	0.8309
24.97	1.0411	80.00	0.8030
29.94	1.0277	85.05	0.7732
34.98	1.0116	90.02	0.7390
39.93	0.9924	94.43	0.7089
44.95	0.9702	100.00	0.6597
50.00	0.9489		

Blacet, Leighton and Bartlett, 1931

t	U 95%	U 75%	U 50%	U 25%
30	0.668	0.796	0.919	1.051
35	.683	.815	.925	.053
40	.698	.834	.946	.055
45	.716	.855	.955	.060
50	.734	.878	.964	.062
55	.753	.893	.975	.065
60	.771	.904	.983	.066
65	.792	.918	.995	.066
70	.828	.943	1.008	.074
75	-	-	1.013	.074

Bussy and Buignet, 1867

1+1	t:22°	Dt : +7.30
29.87%	t:15.1°	Dt : +9.10

Winkelmann, 1873 and 1907

%	Q mix (cal/g)	%	Q mix (cal/g)	%	Q mix (cal/g)
			0°		
10	6.618	40	10.564	70	4.633
20	11.108	50	8.735	80	3.289
30	11.976	60	6.685	90	1.894

Liebetanz, 1892

%	Q vap. (cal/g)	%	Q mix (cal/g)
		0°	
25.29	531.29	45	9.53
46.77	452.24	61.1	6.44
74.03	345.20		
100.00	236.66		

Clarke, 1905

%	Q mix (cal/g)	%	Q mix (cal/g)
20.4	2.80	84.9	2.29
25.0	3.53	84.2	2.39
43.4	5.06	86.0	2.10
67.8	4.12		

Bose, 1907

%	Q mix 0°	17.33°	42.05°	74.0°
	cal/mole mixture			
5	148.6	116.7	74.0	24.3
10	237.5	186.8	109.8	-59.1
15	265.9	208.3	117.6	-55.5
20	258.0	204.2	112.7	-49.0
25	238.0	192.0	101.4	-40.6
30	219.5	178.2	86.5	-29.4
35	200.4	161.1	73.0	-16.1
40	181.0	144.1	60.8	-
45	163.0	128.6	50.2	-
50	147.1	113.7	40.4	-
55	132.1	101.3	31.8	-
60	110.2	89.9	23.7	-
65	109.1	79.7	17.4	-
70	98.3	70.4	12.4	-
75	87.1	61.0	8.2	-
80	75.2	51.0	5.3	-
85	61.1	40.2	2.9	-
90	45.4	28.1	1.3	-
95	26.8	14.7	0.4	-
	cal/mole alcohol			
5	21	10	0.7	18
10	43	22	1.5	33
15	69	40	3.0	46
20	98	60	5.5	60
25	119	80	10	74
30	141	101	18	85
35	165	124	26	-
40	197	152	40	-
45	240	181	58	-
50	299	226	82	-
55	364	287	111	-
60	454	360	155	-
65	570	460	208	-
70	726	592	289	-
75	949	769	404	-
80	1297	1020	563	-
85	1770	1391	784	-
90	2355	1864	1082	-
95	2996	2346	1490	500
100	3408	2643	1672	840
	cal/mole water			
5	157	123	78	25
10	254	207	122	-
15	314	244	139	-
20	324	255	142	-
25	316	256	135	-
30	311	253	124	-
35	307	247	113	-
40	303	239	101	-
45	299	233	92	-
50	295	227	81	-
55	294	225	71	-
60	300	225	61	-
65	311	228	51	-
70	327	236	41	-200
75	349	245	33	-225
80	375	255	25	-250
85	407	266	18	-280
90	443	278	12	-310
95	484	291	6	-340
100	530	305	0	-370

cal/g mixture

11.85	7.67	6.02	3.82	1.22
22.12	10.97	8.84	5.27	-
31.09	12.64	9.33	5.32	-
38.98	10.99	8.64	4.81	-
46.00	9.17	7.52	4.05	-
52.27	8.24	6.70	3.28	-
57.92	7.16	5.76	2.63	-
63.12	6.20	4.90	2.07	-
67.65	5.37	4.19	1.65	-
71.88	4.60	3.54	1.262	-
75.75	3.96	3.03	0.955	-
79.31	3.45	2.59	.700	-
82.60	3.00	2.20	.493	-
85.64	2.60	1.88	.327	-1.60
88.46	2.23	1.56	.211	-1.436
91.09	1.85	1.260	.118	-1.235
93.54	1.460	0.954	.065	-1.004
95.83	1.025	0.644	.028	-0.717
97.98	0.543	0.315	.0067	-0.381

Bosnjakovic and Grumbt, 1931

total heat content i (cal/g)
(0° - b.t.)

%	b.t.	i	b.t.	i	b.t.	i
	1.0 atm.		1.25 atm.		1.5 atm.	
0	99.1	99.1	105.4	105.5	110.8	110.9
5	94.3	92.5	99.2	97.3	105.3	104.0
10	90.5	87.2	96.3	93.0	101.4	98.4
15	87.8	82.9	93.6	88.8	98.7	94.2
20	86.0	79.5	91.6	85.4	96.8	90.8
25	84.7	76.7	90.2	82.7	95.5	88.2
30	83.6	74.4	89.0	80.4	94.4	86.0
40	82.0	70.9	87.8	76.9	92.7	82.4
50	80.9	67.9	86.5	73.7	91.8	79.2
60	79.9	64.9	85.4	70.3	90.6	75.4
70	79.0	61.6	84.4	66.6	89.7	71.7
80	78.2	57.8	83.9	62.5	88.7	66.4
90	77.8	53.5	83.0	57.5	87.7	61.1
100	77.8	49.1	83.0	53.0	87.7	56.5

%	b.t.	i	b.t.	i
	1.75 atm.		2.0 atm.	
0	115.4	115.6	119.6	119.9
5	110.1	108.6	113.8	112.6
10	106.0	101.9	109.5	107.1
15	103.1	98.6	106.9	102.8
20	101.0	95.1	105.0	99.4
25	99.5	92.4	103.5	96.6
30	98.4	90.3	102.5	94.4
40	97.0	86.7	100.8	90.8
50	95.7	83.2	99.7	87.3
60	94.6	79.2	98.6	83.0
70	93.6	74.6	97.5	78.2
80	92.7	69.7	96.6	72.8
90	91.8	64.4	95.7	67.5
100	91.8	59.8	95.7	62.9

Bosnjakovic and Grumbt, 1931

total heat content i (cal/g)
(0° - t°)

%	0	10	20	30	40	50
0	0	+10	+20	+30	+40	+50
5	-3.7	6.5	16.6	26.8	37.1	47.3
10	-6.6	3.5	13.8	24.1	34.5	44.9
15	-9.1	1.2	11.6	22.0	32.5	43.0
20	-10.7	-0.5	9.9	20.3	30.8	41.4
25	-11.6	-1.5	8.8	19.1	29.8	40.2
30	-12.1	-2.0	8.2	18.4	28.8	39.2
35	-11.6	-1.9	8.0	18.1	28.2	38.5
40	-10.8	-1.5	8.1	18.0	27.9	38.0
50	-8.7	0.0	8.9	18.1	27.5	37.1
60	-6.7	+1.4	9.8	18.3	27.1	36.4
70	-5.0	2.5	10.2	18.2	26.6	35.8
80	-3.4	3.4	10.4	17.8	25.8	34.7
90	-2.0	4.3	10.7	17.4	24.6	32.3
100	0	5.5	11.2	17.1	23.4	29.8

%	60	70	80	90	100
0	+60	+70	+80	+90	+100
5	57.6	67.8	78.0	88.2	98.4
10	55.4	65.8	76.2	86.6	96.9
15	53.6	64.1	74.5	85.0	95.4
20	52.2	62.5	73.0	83.6	94.1
25	50.8	61.3	71.8	82.4	92.9
30	49.7	60.1	70.6	81.3	91.9
35	48.8	59.1	69.6	80.3	90.9
40	48.1	58.3	68.7	79.4	90.0
50	46.9	56.7	66.9	77.4	87.6
60	45.8	55.4	65.0	74.8	84.3
70	45.0	53.8	62.6	71.4	80.2
80	43.4	51.5	59.2	67.4	75.5
90	40.1	47.6	55.2	63.0	70.8
100	36.5	43.4	50.7	58.4	66.4

Henneberg, 1389

%	t	thermal conductivity	%	t	thermal conductivity
0	11.52	22.19	60	13.34	10.63
10	11.94	19.99	70	14.11	9.60
20	12.36	17.81	80	14.49	8.29
30	12.94	16.16	90	15.03	7.11
40	12.90	14.11	100	14.25	6.68
50	12.93	12.17			

Raikow, 1899 and 1902

vol%	flashing point	vol%	flashing point
710-713mm			
100	12	35	27.75
98	13.25	30	29.50
96	14	25	33.25
94	15	20	36.75
92	15.75	15	41.75
90	16.50	14	43
85	17.75	13	44.25
80	19	12	45.75
75	19.75	11	47
70	21	10	49
65	21.25	9	50.25
60	22.25	8	52.50
55	23	7	55
51.9	23.75	6	58.26
50	24	5	62
45	24.75	4	68
40	26.25		

Raikow and Schtarbanow, 1904

vol%	flashing point	vol%	flashing point
711 mm			
15	41.75	9	50.5
14.5	42.25	8.5	52
14	43	8	53
13.5	43.75	7.5	53.75
13	44	7	55.50
12.5	45	6.5	56.75
12	47.75	6	58.28
11.5	46.50	5.5	60
11	47	5	62
10.5	48	4	68
10	49		
9.5	49.50		

LXII. WATER + OTHER ALCOHOLS .

Water + Propyl alcohol (C_3H_8O)

Heterogeneous equilibria .

Konovalov, 1887

t	p	t	p
6.2 %			
17.65	20.8	69.35	334.1
40.30	79.4	80.85	540.3
51.00	138.7	88.50	740.4
59.80	214.2		
18 %			
16.25	19.0	61.40	235.1
32.60	51.2	70.55	357.2
42.90	91.2	80.75	547.5
52.10	149.0	88.60	747.0
51.45	144.2		
35.9 %			
16.25	.19.2	60.50	231.50
33.00	54.6	70.90	368.80
42.35	91.8	80.30	546.0
50.65	141.75	88.00	745.3
52.8 %			
19.65	24.5	60.95	237.5
32.35	52.9	71.40	382.8
40.15	82.6	81.40	579.8
51.55	149.8	87.70	749.9
62.27 %			
19.4	25.1	60.50	234.8
33.0	56.8	71.43	384.1
42.7	94.8	78.40	586.0
51.05	148.7	87.60	749.0
88.8 %			
19.4	19.4	70.85	295.5
32.55	42.7	80.65	455.8
42.2	74.1	89.4	649.6
51.2	119.2	90.55	751.2
61.35	195.0		
100 %			
16.5	10.9	70.5	247.7
52.4	101.1	82.1	411.4
59.9	148.5		

t	% L	% V
31.5	6.2	51.10
40.3	-	53.03
51.0	-	57.01
59.8	-	59.03
32.6	21.8	66.40
42.9	-	69.1
52.1	-	71.5
32.55	88.8	76.5
42.2	-	77.9
51.2	-	78.9

Sorel, 1900

% L	% V	% L	% V
at b.t. 760mm			
2	30.2	50	68.7
5	47	55	69.1
10	55.3	60	69.5
15	61.1	65	69.6
20	64.5	70	70.1
25	65.7	75.75	72.2
30	66.6	80	75.4
35	67.3	85	75.6
40	67.7	90	84.1
45	68.2	95	90.8

Kuenen and Robson, 1902

t	P	t	P
100 %			
96.0	0.96	166.9	8.47
98.45	1.06	183,3	12.20
105.1	1.37	228.3	28.71
128.3	2.97	242.1	36.35
131.1	3.23	248.2	39.76
149.9	5.63	250.6	41.36
160.2	7.21	264.0	51.51
97.5 %			
95.15	1.04	183.1	13.35
98.0	1.17	216.8	25.12
105.05	1.52	227.8	30.61
116.8	2.25	245.1	40.14
130.8	3.54	254.6	42.42
145.4	5.57	264.9	55.94
160.2	7.99		
75 %			
166.9	11.20	241.35	47.98
179.1	14.56	250.2	56.2
182.7	15.76	261.8	67.33
215.7	30.57	275.85	83.81
224.6	35.85		
75 % (2nd series)			
85.2	0.91	105.1	1.89
87.6	1.00	116.8	2.81
92.2	1.17	123.65	3.50
99.15	1.26		

Vrevskii, 1910

% L	% V	p	p_2	p_1
		30.35°		
24.01	64.85	45.6	16.3	29.3
38.43	65.76	47.0	17.2	29.8
68.08	68.31	47.0	18.5	28.5
68.31	68.08	-	18.3	28.7
69.98	68.55	47.0	18.0	28.4
80.65	70.72	47.0	19.8	27.2
100.00	-	28.5	28.5	-
		49.92°		
24.88	65.27	136.4	49.2	87.2
38.79	66.44	138.7	51.7	87.0
59.36	68.32	139.1	54.6	84.5
69.51	69.75	139.7	57.1	82.6
69.98	69.73	140.4	57.4	83.0
75.34	70.72	138.9	58.4	80.5
80.65	71.95	138.4	60.2	78.2
90.42	78.95	129.3	68.4	60.9
93.83	83.01	121.3	72.1	49.2
100.00	100.00	90.0	90.0	-
		65.94°		
24.51	65.27	292.7	105.5	187.2
38.50	65.85	296.1	108.5	187.6
59.15	68.79	299.2	119.1	180.1
69.98	70.49	301.0	125.7	175.3
70.49	70.49	300.6	125.5	175.1
70.72	70.49	300.6	125.5	175.1
75.34	71.48	300.0	128.7	171.3
80.65	73.52	297.4	135.1	162.3
90.42	80.38	277.8	153.1	124.7
93.83	84.52	261.2	162.2	99.0
100.00	100.00	198.8	-	-
		79.80°		
23.79	64.65	530.0	187.7	342.3
38.09	66.23	539.6	199.9	339.7
58.96	69.50	547.0	222.1	324.9
69.98	70.72	548.1	230.3	317.8
70.72	71.00	548.5	232.0	316.5
71.46	71.46	549.7	235.7	314.0
75.34	72.24	545.7	238.8	306.9
80.65	74.28	541.7	251.4	290.3
90.42	81.49	506.6	288.1	218.4
93.83	85.71	479.2	308.0	171.2
100.00	100.00	374.6	374.6	-

Gadwa, 1936

mol% L	mol% V	b.t.	mol% L	mol% V	b.t.
		760mm			
0.0	0.0	100.0	43.2	43.2	87.8
1.0	11.0	95.0	50.0	45.2	87.9
2.0	21.6	92.0	60.0	49.2	88.3
4.0	32.0	90.5	70.0	55.1	89.0
6.0	35.1	89.3	80.0	64.1	90.5
10.0	37.2	88.5	85.0	70.4	91.5
20.0	39.2	88.1	90.0	77.8	92.8
30.0	40.4	87.9	96.0	90.0	95.0
40.0	42.4	87.8	100.0	100.0	97.3

Fowler and Hunt, 1941

% L	% V	% L	% V
	25°		
1.1	19.9	38.4	67.3
4.3	44.0	40.6	67.2
9.0	56.8	40.6	67.2
9.7	58.7	45.4	68.0
9.8	58.6	47.5	66.5
12.8	62.6	48.3	68.0
14.4	63.4	65.0	70.0
19.8	65.5	68.0	69.9
20.6	65.1	69.0	70.2
24.2	65.1	69.0	70.2
28.8	66.5	71.3	71.0
29.3	65.7	79.9	75.2
30.3	66.2	84.9	77.1
33.8	66.6	91.4	83.4

Butler, Thomson and Maclennan, 1933

mol%	wt%	p_2	p_1
	25°		
1.00	27.6	2.68	23.4
2.00	41.7	5.05	23.5
5.00	60.8	10.80	23.2
10.00	65.9	13.20	22.7
20.00	67.4	13.60	21.8
40.00	68.5	14.20	21.7
60.00	72.1	15.20	19.9
30.00	81.6	17.80	18.4
90.00	88.8	19.40	8.3
95.00	94.3	20.80	4.2
100.00	100.0	21.76	0.0

Doroshevski and Polyanski, 1910

%	b.t. 700mm	dt/dp	b.t. 760mm	dt/dp	b.t. 800mm
0	97.72	0.0380	100.00	0.0360	101.44
9.92	89.22	.0362	91.39	.0350	92.79
19.99	86.80	.0362	88.98	.0342	90.35
29.99	86.22	.0360	88.38	.0345	89.76
40.04	85.99	.0360	88.17	.0340	89.53
49.96	85.82	.0360	87.98	.0340	89.34
59.98	85.70	.0358	87.85	.0340	89.21
69.91	85.60	.0360	87.76	.0340	89.12
80.02	85.81	.0360	87.97	.0340	89.33
90.02	87.20	.0363	89.38	.0340	90.74
100.00	95.09	.0362	97.26	.0342	98.63

Ryland, 1899

Az. b.t. 87-87.5 (770 mm) 72%

Young and Fortey, 1901

%	b.t.
71.69	87.72 Az
100	97.19

dp/dt (at b.t.) = 28.7 mm

Wrewski, 1910

Az	
b.t.	%
97.19	71.69
79.80	71.40
65.94	70.50
49.92	69.80
30.35	68.20

Fowler and Hunt, 1941

Az. b.t. 70.9% 87.76°

Pickering, 1893

1st series

%	f.t.	%	f.t.
1.257	- 0.37	52.701	- 11.20
2.408	- 0.73	57.210	- 11.58
3.753	- 1.18	62.841	- 12.07
4.918	- 1.51	67.681	- 12.66
6.336	- 2.00	72.919	- 13.77
8.718	- 2.82	74.949	- 14.92
11.917	- 3.98	77.786	- 16.50
15.187	- 5.35	79.916	- 18.36
18.276	- 6.75	81.402	- 19.7
21.297	- 7.87	83.648	- 22.1
24.147	- 8.66	85.040	- 24.2
26.675	- 9.13	86.426	- 26.5
29.667	- 9.60	87.121	- 28.0
34.777	- 9.98	88.625	- 31.9
39.489	-10.32	91.007	- 40.5
42.269	-10.54	91.916	- 44.5

2nd series

%	f.t.	%	f.t.
31.878	- 9.564	71.377	-13.475
37.378	-10.012	72.871	-13.914
39.489	-10.151	74.904	-14.371
39.851	-10.090	76.542	-15.343
42.181	-10.284	77.786	-16.131
44.724	-10.469	79.896	-17.54
48.146	-10.735	81.402	-18.80
49.534	-10.771	82.426	-20.15
52.701	-11.022	83.684	-20.85
54.745	-11.189	85.040	-23.10
57.210	-11.374	86.426	-25.05
59.875	-11.569	87.985	-28.00
62.841	-11.855	88.737	-31.10
64.419	-12.084	89.643	-33.10
66.415	-12.430	90.340	-34.65
68.241	-12.637	90.866	-38.50
70.011	-12.956	91.980	-41.30

3rd series

%	f.t.	%	f.t.
2.027	- 0.610	62.841	-11.56
3.974	- 1.199	64.670	-11.91
5.867	- 1.856	65.159	-11.95
7.915	- 2.591	67.418	-12.28
10.025	- 3.250	67.941	-12.40
11.917	- 3.993	69.025	-12.30
13.968	- 4.769	69.526	-12.43
15.925	- 5.562	70.481	-12.83
17.902	- 6.641	71.377	-13.05
19.892	- 7.513	73.583	-13.65
21.884	- 8.078	74.949	-14.30
23.871	- 8.550	76.542	-14.59
25.935	- 8.816	78.727	-15.83
27.891	- 9.098	80.689	-17.06
29.667	- 9.175	82.380	-19.1
29.902	- 9.202	84.140	-20.6
31.874	- 9.459	85.650	-23.5
33.885	- 9.623	86.853	-25.3
34.437	- 9.652	87.985	-27.4
38.401	- 9.817	89.313	-30.7
42.269	-10.043	89.953	-32.3
45.045	-10.33	90.340	-35.5
47.423	-10.466	91.098	-37.4
54.416	-10.85	91.916	-42.5
57.016	-11.024	92.719	-47.5
60.193	-11.28		

Abegg, 1894

M	f.t.
1.007	- 1.953
2.015	- 4.263
3.022	- 7.143
4.029	- 9.698
4.407	-10.120
5.037	-10.608

Jones, 1904. Jones and Getman, 1904

M	f.t.	M	f.t.
0.5	-0.890	3.0	-7.100
1.0	-1.900	4.0	-8.820
2.0	-4.160	5.0	-9.450

Ross, 1954

%	f.t.	%	f.t.
0	0	40	-10.8
10	-3.4	50	-10.9
20	-7.8	60	-11.8
30	-10.1	70	-13.7

Lemonde, 1936

vol%	D	vol%	D
	11°		
1.2	0.77	59	0.08
6	.67	79	.15
12	.55	89	.28
23.5	.33	98	.47
45	.11		

Hansen and Miller, 1954 (fig.)

mol%	lg activity coeff.	mol%	lg activity coeff.
3	1.05	50	0.09
10	0.80	60	.05
20	.50	70	.03
30	.32	80	.02
40	.15	95	.00

Properties of phases.

Pagliani, 1880-1

%	d	%	d
	0°		
0	0.9999	52.63	0.9174
10.00	.9878	62.50	.8974
18.18	.9805	76.92	.8691
25.00	.9707	86.92	.8502
35.71	.9511	100.00	.8190
40.00	.9425		

Pagliani and Battelli, 1884

%	d	%	d
	0°		
10.00	0.9878	45.45	0.9290
18.18	.9805	52.63	.9174
25.00	.9707	62.50	.8974
35.71	.9511	76.92	.8691
40.00	.9425	100.00	.8203

Turbaba, 1893

%	d 0°	d 15°	d 30°
1	0.99820	0.99740	0.99403
2	.99668	.99597	.99242
2.97	.99527	.99442	.99084
4.01	.99386	.99289	.98925
5	.99263	.99154	.98775
10.49	.98696	.98463	.97979
15.01	.98330	.97925	.97301
19.94	.97898	.97242	.96440
25.46	.97085	.96238	.95326
30.09	.96256	.95031	.94371
41.04	.94102	.93093	.92044
50.84	.92158	-	-
60.03	.90326	.89216	.88067
69.06	.88530	.87378	.86192
81.06	.86131	.84945	.83715
90.11	.84271	.83062	.81831
94.85	.83234	.82027	.80802
98.94	.82237	.81053	.79838
100.00	.81944	.80772	.79577

Young and Fortey, 1901

%	d
	0°
71.69	0.88004
74.93	.87365
79.96	.86360
84.87	.85362
89.97	.84307
94.97	.83203
100.00	.81923

Rüdorf, 1903

%	d	%	d
	25°		
0	0.997	8.22	0.982
2.03	.992	16.67	.968
4.08	.988	34.33	.940

Jones, 1904 ; Jones and Getman, 1904

M	d	M	d
	0°		
0	0.999868	4.0	0.957576
0.5	.993392	5.0	.943840
1.0	.986760	6.0	.929644
2.0	.979080	7.0	.913488
3.0	.969912		

Clarke, 1905

%	d	%	d
	0°		
100	0.8222	29.7	0.9677
73.9	.8657	19.5	.9786
62.8	.8889	0.0	.9998
51.0	.9186		

Mueller and Abegg, 1907

mol%	d
25°	
0	0.9971
23.66	.9043
53.63	.8231
83.65	.8133
100.00	.8010

Doroshevski, 1909 and 1910

%	d	%	d
	15°		
2.02	0.99578	44.96	0.92266
5.03	.99137	50.07	.91221
14.99	.97916	54.96	.90220
19.97	.97208	69.96	.87166
24.98	.93616	75.00	.86148
34.98	.94315	79.98	.85128
35.01	.94310	94.99	.81961
	15°		
0	0.99913	59.99	0.89185
9.92	.98514	69.95	.87167
19.99	.97202	80.02	.85122
29.98	.95321	90.02	.83047
40.04	.93268	100.00	.80733
49.96	.91231		

Doroshevski and Rozhdestvenski, 1910

%	d	%	d	%	d
		15°			
0	0.99913	34	0.94514	68	0.87563
1	.99745	35	.94312	69	.87360
2	.99580	36	.94109	70	.87158
3	.99430	37	.93907	71	.86956
4	.99284	38	.93703	72	.86755
5	.99142	39	.93498	73	.86553
6	.99005	40	.93291	74	.86351
7	.98874	41	.93083	75	.86148
8	.98748	42	.92876	76	.85944
9	.98626	43	.92670	77	.85739
10	.98507	44	.92464	78	.85535
11	.98390	45	.92258	79	.85331
12	.98274	46	.92053	80	.85126
13	.98157	47	.91644	81	.84921
14	.98038	48	.91439	82	.84716
15	.97915	49	.91235	83	.84511
16	.97788	50	.91029	84	.84307
17	.97653	51	.90824	85	.84102
18	.97509	52	.90620	86	.83896
19	.97358	53	.90415	87	.83688
20	.97202	54	.90210	88	.83478
21	.97036	55	.90004	89	.83266
22	.96864	56	.89799	90	.83151
23	.96685	57	.89594	91	.82836
24	.96500	58	.89390	92	.82618
25	.96310	59	.89185	93	.82399
26	.96114	60	.88981	94	.82179
27	.95917	61	.88778	95	.81959
28	.95718	62	.88576	96	.81730
29	.95518	63	.88373	97	.81490
30	.95318	64	.88170	98	.81240
31	.95118	65	.87968	99	.80982
32	.94918	66	.87765	100	.80733
33	.94716	67			

Atkins and Wallace, 1913

t	d	t	d
77.44%		100%	
0.0	0.87001	0.0	0.82135
13.5	.85974	13.4	.81086
24.2	.85102	47.3	.78484
43.7	.83468		

Frankforter and Frary, 1913

%	d	%	d
	20°		
86.77	0.83211	96.21	0.81175
90.15	.82497	97.997	.80753
92.27	.82044	98.065	.80568
94.28	.81600	100.00	.80237

Mathews and Cooke, 1914

t	d
50%	
0	0.98853
25	.9058
40	.8946
55	.8829
70	.8700

Springer and Roth, 1930

%	d	%	d
	25°		
0.0	1.0029	64.94	0.8765
22.61	0.9625	69.40	.8695
52.90	0.8810	100.00	.8007

Dunstan and Thole, 1930

%	d 20°	d 25°	d 30°
0.00	0.9983	0.9972	0.9958
17.40	.9746	.9723	.9699
28.62	.9536	.9494	.9476
59.38	.8918	.8867	.8831
73.13	.8623	.8584	.8543
100.00	.8057	.8011	.7970

Brun, 1931

%	d 0°	d 20°
0.00	0.99986	0.99823
10.69	.99648	.98273
23.16	.96668	.96362
33.81	.94560	.94250
51.28	.92069	.90680
66.02	.893550	.87228
79.01	.886527	.84645
93.10	.883704	.81818
100.00	.820310	.80292

Gonzales and Salazar, 1932

%	d 25°	d 30°	d 35°
0.000	0.99707	0.99567	0.99405
4.983	.98946	.98792	.98619
4.990	.98912	.98758	.98581
9.982	.98261	.98081	.97886
14.975	.97571	.97349	.97101
17.211	.97206	.96950	.96676
19.936	.96758	.96483	.96195
24.959	.95781	.95484	.95166
29.938	.94767	.94449	.94112
32.214	.94296	.93967	.93622
34.994	.93715	.93377	.93028
35.644	.93575	.93232	.92882
39.849	.92696	.92350	.91986
44.997	.91582	.91220	.90816
45.352	.91554	.91191	.89770
49.928	.90555	.90151	.89770
49.943	.90516	.90151	.89246
52.550	.90013	.89637	.89246
54.824	.89535	.89637	.88747
54.898	.89524	.89141	.88233
57.333	.89011	.88628	.87697
59.894	.88192	.88102	.87697
59.926	.88479	.88102	.87170
62.409	.87963	.87571	.86674
64.883	.87458	.87063	.86674
64.922	.87447	.87063	.86674
69.820	.86445	.87063	.85620
69.849	.85443	.86037	.85620
74.737	.85426	.86037	.84581
74.871	.85410	.85002	.84185
76.816	.85013	.84608	.83535
79.898	.84377	.83961	.83535
79.946	.84357	.83961	.83535
84.407	.83445	.83961	.82502
84.876	.83354	.82937	.82502
86.724	.82975	.82561	.82136
89.690	.82551	.81939	.81510
90.020	.82252	.81939	.81510
94.547	.81305	.80893	.80470
99.652	.80086	.79691	.79268

Harms, 1938

mol%	d	mol%	d
	15°		
0.000	0.999126	41.173	0.85126
.608	.99580	54.542	.84101
.919	.99430	62.960	.83051
1.554	.99141	72.454	.82179
2.881	.98626	87.804	.81730
5.027	.97914	90.653	.81490
6.976	.95318	93.630	.81240
11.391	.91234	96.742	.80982
23.075	.89184	100.000	.80733
31.031	.87158		

Fowler and Hunt, 1941

%	d	%	d
	25°		
0	0.998	70	0.862
10	0.981	77	0.85
15	0.975	80	0.842
25	0.96	90	0.824
35	0.938	98	0.803
50	0.905	99	0.8025
60	0.884	100	0.80

Jacobson, 1951

vol%	d	vol%	d
	20°		
0	0.9982	58.8	0.9014
9.6	.9863	69.5	.8791
19.3	.9748	79.2	.8580
29.3	.9593	88.6	.8335
39.0	.9411	100.0	.8045
49.0	.9214		

Anissimov, 1953

%	d	%	d
	15°		
0	0.9991	60	0.8922
10	.9852	70	.8719
20	.9723	80	.8516
30	.9535	90	.8308
40	.9331	100	.8077
50	.9124		

Jacobson, 1951

vol%	π	vol%	π
0	45.37	58.8	55.40
9.6	41.77	69.5	60.59
19.3	40.19	79.2	65.67
29.3	43.18	88.6	71.90
39.0	47.00	100.0	82.83
49.0	51.29		

Mc Hutchinson, 1926

N	maximum density temperature
1	1.50
0.5	3.30
0.25	3.80
0.125	4.15
0.0625	4.10

Viscosity

Pagliani and Battelli, 1884

%	η 0°	η 10°	%	η 0°	η 10°
0	1775	1309	45.45	7890	4764
10.00	3354	2185	52.63	7657	4812
18.18	5014	3046	62.50	7374	4633
25.00	6115	3527	76.92	6001	4091
35.71	7533	4435	100.00	4170	3119
40.00	7789	4621			

%	η 0°	η 10°	%	η 0°	η 10°
0	1775	1309	45.45	7889	4762
10.00	3352	2182	52.63	7656	4810
18.18	5012	3044	62.50	7373	4631
25.00	6113	3525	76.92	6000	4089
35.71	7532	4433	100.00	4168	3134
40.00	7788	4619			

(second series)

Rüdorf, 1903

%	η (water=1)
25°	
2.03	1.031
4.09	.188
8.25	.707
16.72	.912
34.43	2.995

Dunstan, 1904-5

%	η	%	η
25°			
0.00	891	52.90	2686
8.55	1289	53.58	2707
9.29	1313	64.94	2703
22.61	1982	69.40	2620
24.91	2047	69.87	2605
25.59	2110	79.43	2450
28.31	2188	83.89	2364
35.15	2456	86.60	2311
36.42	2438	100.00	1962
43.40	2616		

Springer and Roth, 1930

%	η (water 0°=1)	%	η (water 0°=1)
25°			
0.0	0.5552	64.94	1.5220
22.61	1.0825	69.40	1.4670
52.90	1.4940	100.00	1.1408

Lemonde, 1936

vol%	η	vol%	η
11°			
0	1260	59	4440
1.2	1340	79	3920
6	1680	89	3420
12	2130	98	3000
23.5	3090	100	2870
45	4350		

Laamanen, 1922

%	a^2	%	a^2
18°			
2	10.54	50	5.80
5	8.87	60	5.90
10	7.26	70	6.00
20	5.85	80	6.11
30	5.58	90	6.70
40	5.67	100	6.06

Brun, 1931

%	σ	%	σ
20°			
0.00	73.00	59.50	26.05
18.80	27.70	80.50	25.10
23.16	27.02	93.10	24.50
40.00	26.15	100.00	24.30
51.25	25.66		

Teitelbaum, Gortalova and Sidorova, 1951

mol%	σ -10°	-5°	0°	+5°	+10°	+15°
0	-	-	75.70	74.96	74.27	73.51
0.1	-	-	70.58	69.38	68.68	67.77
0.2	-	-	65.19	64.13	63.01	62.16
0.5	-	62.66	61.11	59.84	58.92	57.80
1.2	-	53.43	51.46	50.48	48.92	47.80
2.6	46.18	44.42	42.66	41.11	40.13	38.86
5.7	34.28	32.81	31.47	30.48	29.71	28.86
13.8	27.74	27.32	26.96	26.54	26.19	26.05
26.6	27.24	26.96	26.54	26.19	25.77	25.48
49.1	26.96	26.75	26.26	25.94	25.62	25.18
100.0	26.26	25.80	25.80	24.92	24.57	24.15

mol%	+20°	+25°	+30°	+35°	+40°	+45°	+50°
0	72.75	71.98	71.21	70.37	69.52	68.76	67.92
0.1	67.21	66.36	65.87	64.96	64.32	63.76	63.20
0.2	61.32	60.68	59.91	59.00	58.50	57.94	57.52
0.5	57.09	56.18	55.48	54.84	54.21	53.72	53.56
1.2	46.60	45.90	44.84	44.14	43.65	43.02	42.80
2.6	37.88	36.68	35.90	35.13	34.50	34.14	33.44
5.7	28.30	27.67	27.24	27.00	26.68	26.40	25.91
13.8	25.77	25.34	25.13	24.71	24.57	24.22	23.80
26.6	25.20	24.78	24.36	24.11	23.90	23.55	23.20
49.1	24.87	24.43	24.04	23.65	23.37	22.92	22.53
100.0	23.79	23.34	22.92	22.46	22.18	21.68	21.30

Winkelmann, 1890

%	D n_D (aq.-sol.)	%	D n_D (aq.-sol.)
	40°		
6.2	-0.0056	75.5	-0.0478
20.5	-0.0180	80.2	-0.0495
49.5	-0.0364	88.8	-0.0521
66.6	-0.0439	100.0	-0.0536

Gerber, 1891

%	$n_{aq.}-n_{sol.}$	%	$n_{aq.}-n_{sol.}$
0	-0	40	-0.0301
10	-0.0078	50	-0.0356
20	-0.0167	60	-0.0407
30	-0.0241	100	-0.0532

Doroschevskii and Dvorzhanchik, 1908

%	n_D 15°	n_D 20°	%	n_D 15°	n_D 20°
0.0	1.33345	1.33306	47.13	1.36920	1.36767
1.90	.33512	.33476	63.22	.37719	.37551
4.33	.33740	.33687	77.23	.38232	.38052
13.25	.34608	.34542	89.45	.38594	.38406
21.20	.35340	.35237	91.55	.38644	.38456
23.24	.35492	.35383	95.08	.38711	.38522
34.24	.36192	.36059	97.95	.38736	.38550
37.77	.36403	.36269	100.00	.38729	.38547

Vrevskii, 1910

%	n_D	%	n_D
	20°		
0.0	1.33296	57.73	1.37243
9.72	.34195	61.62	.37415
26.44	.35555	71.20	.37798
28.72	.35713	78.41	.38053
34.71	.36072	86.41	.38299
42.99	.36526	93.34	.38451
50.46	.36899	100.00	.38499

Bennet and Garratt, 1925

$d_{15.5}$	n_D	$d_{15.5}$	n_D
	20°		
0.8090	1.3855	0.9508	1.3576
.8153	.3851	.9580	.3558
.8333	.3840	.9643	.3533
.8484	.3815	.9701	.3510
.8630	.3790	.9751	.3483
.8765	.3765	.9801	.3445
.8888	.3738	.9859	.3402
.9010	.3710	.9887	.3378
.9126	.3680	.9906	.3365
.9234	.3655	.9948	.3340
.9332	.3630	.9974	.3330
.9428	.3603		

Frankel, 1930

%	n_{Abbe}	%	n_{Abbe}
	13°		
0	1.33352	16.782	1.34984
3.251	.33667	25.689	.35671
6.554	.33964	36.088	.36337
8.225	.34143		

Fowler and Hunt, 1941

%	n_D	%	n_D
	25°		
0	1.333	62	1.3735
5	.3375	66	.3755
10	.342	70	.3770
15	.346	75	.3790
20	.351	77	.3795
25	.354	80	.3800
30	.357	85	.3850
35	.360	90	.3830
44	.365	95	.3840
50	.368	100	.3840
52	.370		
60	.373		

Anissimov, 1953

%	n_D	%	n_D
	15°		
0	1.3333	60	1.3754
10	.3429	70	.3795
20	.3523	80	.3831
30	.3590	90	.3860
40	.3651	100	.3873
50	.3705		

Thwing, 1894

%	ε	%	ε
	15°		
0	75.50	65	37.52
10	69.50	70	36.87
20	62.80	77	36.00
25	60.08	80	28.92
35	53.35	90	21.60
50	44.63	95	20.78
55	42.00	99.8	20.45
60	38.75		

Salazar, 1924

%	ε	%	ε
	25°		
0.000	81.12	55.020	33.08
5.014	77.64	57.494	32.89
9.999	73.24	60.002	30.81
10.005	73.67	62.499	29.27
15.009	69.48	62.507	29.35
15.010	64.81	64.989	28.51
20.027	59.25	69.966	26.10
25.015	53.05	69.985	25.72
30.018	50.67	70.011	26.21
32.269	47.13	75.011	24.09
35.744	44.19	76.904	22.92
40.010	40.80	80.000	22.20
45.029	39.69	84.774	21.29
45.452	36.72	86.964	20.60
49.904	35.86	89.959	20.03
50.001	34.86	94.989	19.43
52.664	34.90	96.862	19.01
54.992	33.68	99.870	18.93

Åkerlöf, 1932

%	ε				
	20°	40°	50°	60°	80°
0	80.37	73.12	69.85	66.62	60.58
10	73.52	66.81	63.66	60.65	54.77
20	66.54	60.24	57.23	54.49	49.01
30	59.21	53.46	50.72	48.19	43.00
40	51.68	46.55	44.08	41.76	37.53
50	44.29	39.70	37.38	35.39	31.42
60	37.51	33.54	31.49	29.71	26.22
70	31.56	28.20	26.42	24.92	21.84
80	26.83	23.89	22.39	20.95	18.28
90	23.34	20.67	19.37	18.07	15.81
100	20.81	18.25	17.11	15.88	13.86

Jacobson, 1951

vol%	sound velocity (m/sec.)	vol%	sound velocity (m/sec.)
0	1486	58.8	1415.1
9.6	1558	69.5	1370.2
19.3	1597.6	79.2	1332.2
29.3	1553.8	88.6	1291.8
39.0	1503.6	100.0	1225.0
49.0	1454.7		

Martin and Brown, 1938

mol%	ε	mol%	ε
	25°		
5	20.4	80	46.2
10	20.8	90	59.7
20	21.8	95	68.27
40	25.0	100	78.48 .
60	31.15		

Schwers, 1912

%	t	$(\alpha)_{magn.}$ λ=589.3	λ=546	λ=436
0	15.4	0.844	0.9985	1.617
	29.2	.842	.9963	.613
	52.0	.836	.9904	.603
20.733	15.5	0.8435	1.0003	1.6238
39.165	14.9	0.8232	0.9850	1.6016
100	17.3	0.7615	0.9081	1.4815
	59.5	0.7231	0.8617	1.4017

Zetterman, 1881

%	U	%	U
	20°		
10	1.055	40	0.972
20	1.082	50	0.908
30	1.032		

Pagliani, 1882

%	U	%	U
	25°		
0	1	52.63	0.903
10.00	1.079	62.50	0.854
18.18	1.094	76.92	0.785
25.00	1.050	86.92	0.733
35.71	1.003	100.00	0.659
40.00	0.972		

Bose, 1907

%	U 0.2-4.9°	U 21.1-26.6°	U 38.6-42.3°
0	1.006	0.999	0.999
5	.031	1.021	1.012
10	.052	.040	.022
15	.069	.053	.028
20	.086	.056	.029
25	.082	.048	.011
30	.036	.026	0.989
35	0.993	0.994	.966
40	.953	.962	.943
45	.913	.928	.920
50	.876	.899	.898
55	.844	.870	.874
60	.812	.840	.850
65	.779	.809	.822
70	.746	.776	.796
75	.713	.743	.769
80	.680	.708	.743
85	.645	.676	.716
90	.610	.643	.685
95	.572	.608	.649
100	.532	.568	.596

Doroshevski, 1910-11

%	U	%	U
	16-100°		
0	1.0060	59.99	0.8881
9.92	.0277	69.95	.8381
19.99	.0213	80.02	.7929
29.98	.0003	90.02	.7315
40.04	0.9671	100.00	.6505
49.96	0.9249		

Young and Fostey, 1901

mol%	t initial	t final
60	27.7	21.55

Dilution with a great amount of water Dt=-4.0°

Clarke, 1905

%	Q(cal/g)	%	Q(cal/g)
70.9	2.02	52.5	4.20
63.9	2.81	39.0	5.63
56.2	3.68	31.6	5.03

Bose, 1907

%	Q mix 0°	Q mix 21.03°	Q mix 43.44°	Q mix 79.70°
	cal/mole mixture			
5	151.0	95.4	16.6	-54.3
10	180.1	97.4	23.3	-
15	156.4	81.7	6.1	-
20	133.0	64.2	-13.0	-
25	110.7	47.4	-30.3	-
30	91.6	31.2	-46.3	-
35	74.6	17.0	-60.6	-
40	59.2	2.8	-73.5	-
45	44.7	-10.0	-85.4	-
50	32.0	-20.3	-96.1	-
55	21.0	-27.6	-103.3	-
60	12.5	-34.2	-106.0	-
65	6.4	-37.6	-103.9	-
70	1.9	-37.5	-98.3	-
75	-2.0	-34.7	-88.7	-
80	-3.1	-31.0	-77.0	-
85	-3.8	-24.7	-61.8	-
90	-3.4	-18.4	-44.1	-
95	-2.3	-10.4	-23.8	-
	cal/mole alcohol			
5	-2.6	-10	-25	
10	-4.9	-20	-49	
15	-6.4	-29	-73	
20	-4.6	-38	-96	
25	-2.0	-47	-119	
30	+2.3	-55	-141	
35	10	-58	-160	
40	22	-58	-176	
45	40	-50	-186	
50	63	-40	-190	
55	100	-20	-190	
60	144	+9	-184	
65	211	48	-174	
70	302	103	-154	
75	443	186	-120	
80	659	319	-62	
85	1033	541	+42	
90	1764	982	+140	
95	3030	1907	+730	
100	3750	2613	+1250	

Bose, 1907

cal/mole water

5	+160	+100	-48
10	200	108	-
15	183	97	-
20	165	80	-
25	149	63	-
30	131	45	-
35	114	26	-
40	97	5	-
45	81	-18	-
50	63	-40	-
55	48	-62	-
60	33	-84	-
65	19	-106	-
70	+7	-125	-
75	-5	-140	-
80	-16	-152	-
85	-26	-162	-
90	-35	-170	-
95	-44	-178	-
100	-52	-185	-

cal/g mixture

14.92	+7.53	+4.74	+1.813	-2.27
27.03	+7.95	+4.42	+0.378	-
37.03	+6.37	+3.34	+0.259	-
45.45	+5.99	+2.62	-0.470	-
52.63	+3.88	+1.63	-1.050	-
58.82	+2.96	+0.533	-1.510	-
64.22	+2.26	+0.513	-1.860	-
68.96	+1.66	+0.103	-2.110	-
73.16	+1.22	-0.244	-2.320	-
76.92	+0.807	-0.513	-2.430	-
80.29	+0.535	-0.669	-2.490	-
83.22	+0.183	-0.864	-2.440	-
86.09	+0.143	-0.832	-2.300	-
88.61	+0.034	-0.812	-2.080	-
90.99	-0.030	-0.713	-1.800	-
93.02	-0.071	-0.589	-1.490	-
94.98	-0.101	-0.459	-1.156	-
96.77	-0.079	-0.323	-0.790	-
98.46	-0.043	-0.164	-0.410	-

Dimmling and Lange, 1951

M	Q mix (cal/mole)	M	Q mix (cal/mole)
	25°		
0.10	2184.7	3.0	1376.0
.20	2172.4	5.0	606
.30	2159.7	7.0	241
.40	2145.3	9.0	37
.50	2127.9	11.0	-58
1.50	1951.9	13.0	-28

M initial	M final	Q dil (cal/mole)
	25°	
0.0460	0.0034	5.43 ± 0.19
.0723	.0054	8.52 " 0.10
.0998	.0025	12.03 " 0.34
.1015	.0075	12.20 " 0.12
.1417	.0035	15.61 " 0.19
.1641	.0041	19.14 " 0.17
.1717	.0043	20.61 " 0.24
.2479	.0061	30.85 " 0.28
.4233	.0105	55.93 " 0.65
.5690	.0141	80.82 " 0.63
4.7293	.0038	1571 " 9.8
9.9077	.0027	2228 " 9.7

Raikow, 1902

vol%	Flashing point	vol%	Flashing point
	713 mm		
4	56	50	31.50
5	52.25	60	31.25
7.5	46	70	30.75
10	41.75	80	29.50
20	33.75	90	28
30	32.25	100	23
40	32		

Water + Isopropyl alcohol (C_3H_8O)

Heterogeneous equilibria

Lebo, 1921

% L	% V	b.t.	% L	% V	b.t.
0	-	100	34.0	80.7	81.6
0.5	7.1	99.5	33.8	79.9	81.3
1.3	19.7	99.3	39.8	80.7	81.4
1.6	35.3	96.5	44.0	72.0	81.3
2.2	34.8	96.6	46.0	81.2	81.3
3.6	49.4	93.7	47.2	81.6	81.2
4.8	55.0	92.6	50.5	81.7	81.1
5.0	56.2	92.2	54.2	82.3	81.1
8.0	67.6	88.1	57.7	82.3	81.1
8.4	69.2	88.0	60.3	82.1	81.0
10.2	70.7	86.1	64.0	82.8	81.0
11.4	75.3	84.9	67.5	82.7	80.9
13.2	75.0	85.0	70.9	83.3	80.8
16.5	75.8	84.1	74.3	84.5	80.8
17.3	76.2	83.2	77.7	85.6	80.8
18.8	77.7	83.1	81.1	86.5	80.8
20.5	78.8	82.6	84.7	88.2	80.7
25.6	79.3	82.3	88.7	91.5	80.5
24.7	78.3	82.1	92.5	94.3	80.9
27.6	79.2	82.1	96.6	"	82.2
30.4	80.2	81.8	100.0	-	82.4

Schumacher and Hunt, 1942

% L	% V	% L	% V
760 mm			
91.3	89.7	61.6	79.9
90.0	89.0	59.3	80.0
88.4	87.9	58.1	79.2
86.8	87.0	52.0	78.8
84.7	85.9	44.0	78.3
82.5	84.9	41.8	77.7
80.0	83.9	33.0	77.0
78.0	83.3	24.0	75.2
75.8	82.5	17.3	74.8
73.5	82.2	11.6	71.8
72.7	81.8	10.7	70.8
68.0	80.9	7.20	63.3
65.0	80.5	5.00	52.6
62.8	80.1		

Az : 87.4 % alcohol b.t. = 80.3°

Langdon and Keyes, 1942

mol % L	mol % V	mol % L	mol % V
at b.t.			
0.15	3.74	51.40	59.85
1.05	18.83	58.45	63.02
9.90	48.84	69.40	68.92
22.90	52.44	82.75	79.55
29.80	54.10	91.35	88.50
45.00	57.72	96.25	95.03

Az : 68.35 mol %

Brunjes and Bogart, 1943

t	wt% L	wt% V	mol% L	mol% V
81.21	97.85	96.82	93.19	90.11
81.01	97.29	96.07	91.53	88,01
80.75	96.33	94.97	88.72	85.00
80.51	95.05	93.54	85.20	81.26
80.30	93.42	91.77	81.00	76.98
80.14	91.77	90.47	77.02	74.01
80.07	90.15	89.28	73.33	71.42
80.05	88.48	88.27	69.71	69.31
80.03	88.15	88.02	69.05	68.79
80.04	87.90	87.74	68.57	68.24
80.05	87.82	87.86	68.38	68.46
80.16	87.70	87.70	68.13	68.13
80.04	86.08	86.91	64.96	66.59
80.14	82.39	85.34	58.38	63.58
80.44	73.95	82.98	45.97	59.39
80.77	62.30	81.27	33.14	56.54
81.11	51.15	80.67	23.87	55.59
81.19	45.24	79.93	19.86	54.44
81.39	39.35	78.99	16.29	52.98
81.41	31.90	79.50	12.32	53.78
82.63	23.50	77.10	8.43	50.24
83.80	14.59	74.42	4.88	46.60
89.04	8.01	63.18	2.54	23.99
90.80	6.50	57.96	2.04	23.08
93.19	4.38	49.00	1.36	22.44
95.30	2.72	36.55	0.83	14.73
98.87	0.52	11.16	0.16	3.64

Benjamin, 1932

mol%	p	mol%	p
27°			
0.0	21	50.0	45.0
14.5	29.4	68.0	50.1
27.0	34.7	84.0	52.8
38.0	39.4	100.0	49.5

Doroshevski and Polyanski, 1911

%	b.t. 700 mm	dt/dp	b.t. 760 mm	dt/dp	b.t. 800 mm
0	97.72	0.0380	100	0.0360	101.44
10.01	86.81	.0372	89.04	.0302	90.25
20.02	82.55	.0368	84.76	.0340	86.12
29.53	81.21	.0357	83.35	.0330	84.67
39.98	80.50	.0350	82.60	.0332	83.93
49.97	80.02	.0353	82.14	.0332	83.47
59.99	79.59	.0352	81.70	.0330	83.02
69.97	79.06	.0352	81.17	.0330	82.49
79.94	78.56	.0342	80.61	.0328	81.92
89.94	78.36	.0345	80.43	.0332	81.76
100.00	80.36	.0342	82.42	.0330	83.72

Wilson and Simons, 1952

p	b.t.		mol%
3087	120.45	Az	69.50
760	80.10		68.70
380	63.90		67.50
190	49.33		67.05
95	36.00		66.70

Ryland, 1899

Az 78.5-79.5 89% (768mm)

Young and Fortey, 1901

Az 80.40° 87.9%

Lemonde, 1938

vol%	D	vol%	D
	16°		
1	0.89	64.5	0.174
14.5	0.63	75	0.204
35.5	0.28	88	0.275
53	0.155	96	0.370

Abegg, 1894

M	f.t.
1.001	-1.845
2.002	-4.125
3.004	-7.343
4.005	-11.820
5.006	-16.330

Ross, 1954

%	f.t.	%	f.t.
0	0	40	-19.4
10	-3.4	50	-21.4
20	-8.0	60	-23.3
30	-14.8	70	-27.2

Properties of phases.

Turbaba, 1893

%	d		
	0°	5°	30°
10	0.9856	0.9838	0.9794
19.97	.9777	.9719	.9642
30.08	.9650	.9549	.9444
40.10	.9445	-	.9218
49.97	.9225	-	.8991
59.07	.9015	-	.8775
79.91	.8530	0.8405	.8275
89.96	.8288	.8162	.8030
100.00	.8016	.7896	.7770

Doroshevski, 1910

%	d	%	d
	15°		
0	0.99913	59.94	0.88705
10.00	.98302	70.08	.86326
19.99	.97160	80.01	.83977
30.00	.95493	89.66	.81699
39.95	.93345	100.00	.78913
49.97	.91051		

Atkins and Wallace, 1913

t	d	t	d
100%		77.17%	
0.0	0.81873	0.0	0.87069
11.8	.80847	13.4	.85970
45.3	.78009	24.2	.85117
		40.7	.83337

Lebo, 1921

%	d	%	d
	20°		
0	0.99000	65.22	0.87003
9.58	.98293	74.35	.84828
21.39	.96847	85.09	.82282
33.17	.94590	90.35	.80866
43.02	.92418	100.00	.78556
53.07	.89868		

Thompson and Molstad, 1945

mol%	wt%	d	mol%	wt%	d
		35°			
1.58	5.07	0.98510	34.81	64.02	0.86044
2.21	7.01	.98186	41.00	69.84	.84647
3.21	9.96	.97726	54.33	79.86	.82248
4.57	13.76	.97136	67.94	87.60	.80358
6.93	19.89	.96112	81.01	93.43	.78924
11.33	29.88	.94087	86.63	95.58	.78382
23.03	49.94	.89417			

Olsen and Washburn, 1938

%	d	%	d
	25°		
0.00	0.9971	53.97	0.8933
7.85	.9838	64.81	.8674
14.95	.9745	75.83	.8415
25.20	.9578	87.51	.8130
33.93	.9398	100.00	.7999
44.08	.9167		

Langdon and Keyes, 1943

mol%	d	mol%	d
	35°		
0	0.99406	15	0.92454
5	.96951	20	.90479
10	.94702	25	.88779

Irany, 1944

vol%	mol%	d	vol%	mol%	d
		20°			
0.0	0.0	0.9982	77.4	44.8	0.8570
9.0	2.3	.9901	78.4	46.2	.8549
21.9	6.0	.9761	87.0	61.5	.8304
32.2	10.1	.9618	94.0	78.8	.8104
49.4	19.0	.9261	100.0	100.0	.7896
67.4	33.1	.8830			

Jacobson, 1951

vol%	d	vol%	d
	20°		
0.0	0.9982	59.3	0.8980
9.8	.9850	69.2	.8745
19.5	.9735	79.5	.8490
31.9	.9556	90.1	.8188
39.2	.9417	100.0	.7871
49.3	.9208		

Wilson and Simons, 1952

mol%	d	mol%	d
	25°		
0	0.98708	59.98	0.82314
10.10	.95356	70.11	.81011
20.11	.91254	80.12	.79912
29.93	.88166	89.17	.78978
40.15	.85696	99.98	.78091
50.01	.83847		

Mc Hutchinson, 1926

N	maximum density temperature
1	2.65
0.5	3.70
0.25	4.00
0.125	4.00

Jacobson, 1951

vol%	π	vol%	π
	20°		
0.0	45.38	59.3	55.07
9.8	41.61	69.2	61.83
19.5	39.04	79.5	69.47
31.9	40.88	90.1	79.61
39.2	44.14	100.0	93.19
49.3	49.09		

Viscosity

Lemonde, 1933

vol%	η	vol%	η
16°			
0	1100	53	4330
1	1140	64.5	4230
9.6	1360	75	4120
14.5	2060	88	3640
19	2500	96	3000
35.5	3770	100	2690
38.5	3940		

Olsen and Washburn, 1938

%	η	%	η
25°			
0.00	899.49	53.97	3100
7.55	1280	64.81	3010
14.95	1730	75.83	2710
25.20	2320	87.51	2330
33.93	2770	100.00	2080
44.08	3010		

Irany, 1944

vol%	mol%	η	vol%	mol%	η
20°					
0.0	0.0	1005	77.4	44.8	3470
9.0	2.3	1510	78.4	46.2	3400
21.9	6.0	2420	87.0	61.5	2960
32.2	10.1	3150	94.0	78.8	2600
49.4	19.0	3780	100.0	100.0	2470
67.4	33.1	3750			

Doroshevski and Dvorzhanchik, 1908

%	n_D 15°	n_D 20°	%	n_D 15°	n_D 20°
0	1.33345	1.33306	76.20	1.37789	1.37602
2.08	.33525	.33482	89.77	.37978	.37777
10.78	.34334	.34274	92.78	.37986	.37786
22.18	.35436	.35324	93.56	.37993	.37793
25.83	.35740	.35613	94.56	.37988	.37787
33.23	.36220	.36084	95.88	.37977	.37779
44.93	.36796	.36641	97.49	.37968	.37766
49.42	.36985	.36829	99.89	.37927	.37733
67.31	.37584	.37403			

Bennett and Garratt, 1925

d	n_D	d	n_D
20°			
0.7932	1.3775	0.9345	1.3612
.7945	.3775	.9511	.3590
.8152	.3770	.9585	.3567
.8330	.3769	.9662	.3542
.8483	.3758	.9701	.3510
.8631	.3745	.9745	.3478
.8764	.3730	.9800	.3435
.8891	.3712	.9856	.3392
.9014	.3695	.9878	.3375
.9148	.3678	.9903	.3358
.9254	.3658	.9942	.3340
.9356	.3632	.9952	.3335

Benjamin, 1932

mol %	$n_{He\ y}$	mol %	$n_{He\ y}$
20°			
0.0	1.33279	70.2	1.37437
19.5	.36445	84.3	.37487
30.1	.37211	100.0	.37529

Schumacher and Hunt, 1942

%	n_D	%	n_D
20°			
5.00	1.337	50.0	1.368
10.0	1.342	55.0	1.370
15.0	1.346	60.0	1.371
20.0	1.351	65.0	1.373
25.0	1.354	70.0	1.3745
30.0	1.358	80.0	1.3765
35.0	1.361	90.0	1.3775
40.0	1.364	100	1.3776
45.0	1.366		

Åkerlöf, 1932

%	ε 20°	ε 40°	ε 50°	ε 60°	ε 80°
0	80.37	73.12	69.85	66.62	60.58
10	73.11	66.33	63.12	60.24	54.83
20	65.72	59.56	56.61	53.87	49.01
30	58.40	52.71	50.18	47.58	43.13
40	51.07	45.86	43.54	41.35	37.31
50	43.68	39.16	37.03	35.05	31.49
60	36.28	32.45	30.67	28.90	25.67
70	29.57	26.30	24.85	23.34	20.67
80	24.44	21.63	20.26	19.03	16.70
90	20.95	18.48	17.11	16.02	13.83
100	18.62	16.23	15.06	14.03	11.91

Jacobson, 1951

vol%	sound velocity m/sec.	vol%	sound velocity m/sec.
	20°		
0.0	1485.8	59.3	1422.0
9.8	1562.1	69.2	1360.0
19.5	1622.2	79.5	1302.1
31.9	1600.0	90.1	1238.6
39.2	1551.0	100.0	1167.6
49.3	1487.4		

Heat constants.

Doroshevski, 1910

%	U	%	U
	16 - 100°		
0	1.0060	59.94	0.9189
10.00	.0325	70.08	.8695
19.99	.0525	80.01	.8184
30.00	.0278	89.66	.7749
39.95	0.9996	100.00	.7233
49.97	.9594		

Sandonnini, 1913

%	U	%	U
	16 - 18°		
5.0	1.012	50.00	0.885
10.00	.025	75.00	.765
15.00	.037	80.00	.731
25.00	.048	90.00	.665
35.00	0.988	95.00	.615

De Forcrand, 1892

mol%	Q dil (mole alcohol)	mol%	Q dil (mole alcohol)
	final conc.= 0.167 N		
	11 - 14°		
5.3	19	11.1	3610
5.6	76	16.5	3675
5.9	120	14.3	3707
6.3	228	16.7	3691
6.7	574	20.0	3728
7.1	1448	25.0	3720
7.7	1844	33.3	3729
8.3	2348	50.0	3692
9.9	2946	98.3	3759
10.0	3399		

Sandonnini, 1913

%	Q mix(cal/gr.)	%	Q mix (cal/gr.)
	16 - 18°		
5.0	3.510	50.00	5.343
10.00	5.571	75.00	1.845
15.00	7.351	80.00	1.118
25.00	8.712	90.00	0.234
35.00	7.953	95.00	0.325

Dimmling and Lange, 1951

M	Q mix (cal/mole)	M	Q mix (cal/mole)
	25°		
0.10	2820.1	3.0	2053
.20	2812.4	5.0	1124
.30	2803.8	7.0	530
.40	2793.5	9.0	150
.50	2781.0	11.0	-50
1.50	2643.0	12.5	-40

M initial	M final	Q dil. (cal/mole)
	25°	
0.0550	0.0041	4.32 ± 0.17
.0596	.0015	4.43 " 0.02
.0725	.0054	5.76 " 0.06
.1056	.0026	8.73 " 0.17
.1427	.0035	11.22 " 0.23
.1603	.0040	12.80 " 0.16
.1706	.0042	14.23 " 0.03
.2492	.0062	20.90 " 0.18
.4469	.0111	41.34 " 0.55
.5738	.0142	57.73 " 0.97
3.1874	.0026	884.4 " 11.40
4.8364	.0039	1623.4 " 10.50
7.3498	.0024	2378.6 " 11.70
9.8208	.0025	2804.2 " 29.70

Raikow, 1902

vol%	Flashing point
717 mm	
10	39.25
20	28.75
30	22.50
40	20.25
50	20.25
60	19.25
70	18.75
80	17.25
90	15.25
100	11.75

Water + Butyl alcohol ($C_4H_{10}O$)

Stockhardt and Hull, 1931

% L	% V	b.t.	dew point
0.1	1.9	99.4	98.5
0.2	4.9	98.4	97.5
0.3	7.1	98.3	97.8
0.6	11.6	96.8	96.1
0.8	15.7	95.4	94.8
1.2	19.2	93.7	93.5
1.4	21.6	93.4	93.4
1.5	22.5	93.4	92.8
1.8	24.2	92.8	93.1
2.0	24.4	93.0	93.1
2.5	24.8	92.7	92.8
42.3	25.0	92.8	92.9
42.9	25.2	92.9	93.0
43.6	24.8	92.9	92.9
44.8	25.0	92.9	92.9
49.4	26.0	93.4	93.4
50.4	26.4	93.5	93.6
69.5	33.8	96.3	96.1
70.8	34.5	96.7	96.6
72.5	35.9	97.2	97.1
74.3	37.1	97.9	97.7
93.0	64.8	108.8	108.2
94.5	67.7	109.6	109.2
95.3	70.1	110.6	110.1
96.1	73.3	111.5	110.9

Smith and Bonner, 1949

767 mm

mol % L	mol % V	b.t.	mol % L	mol % V	b.t.
5.0	25.3	110.95	55.0	75.3	93.00
9.2	38.8	106.85	75.2	75.4	92.70
18.1	40.2	106.40	90.1	75.4	92.70
29.1	55.6	100.85	90.2	75.4	92.70
30.3	66.0	96.65	98.0	76.0	92.80
41.7	66.6	96.35	98.1	76.3	92.85
54.6	72.4	94.00	99.1	83.9	95.40
54.6	75.0	93.02	99.2	85.0	95.80

Pierre and Puchot, 1871

Az : 83.34 vol % 90.5°

Butler, Thomson and Maclennan, 1933

25°

mol %	wt %	p	p
1.00	34.3	2.97	23.4
1.88	46.5	4.87	23.0
48.76	"	"	"
70.00	52.2	5.37	20.3
85.00	65.0	5.98	13.2
100.00	100.0	6.96	0.0

Ernst, Litkenhous and Spanyer, jr., 1932

760 mm

mol%	b.t.	mol%	b.t.
0	100.00	26.7	93.16
2.6	92.98	36.2	93.19
5.7	92.98	49.4	93.40
9.4	93.04	68.7	96.45
13.9	93.09	100.0	117.69
19.6	93.14		

Lecat, 1949

%	b.t.	
62	92.4	Az
100	117.8	

Drouillon, 1925

%	sat.t.	%	sat.t.
5.50	57.0-60.0	30.11	129.5
5.74	45.0-67	34.01	129
6.03	38.5-71	39.60	128.5
6.23	32.5-76	45.82	127
6.46	27.5-81.5	50.84	125
6.55	23 -90.5	53.18	124.5
7.18	94	57.81	119.5
7.58	102	66.31	107.5
8.38	105.5	69.88	97
11.47	119.5	72.40	88
16.35	126.5	76.28	72
18.52	128	78.15	60.5
22.51	129.5	78.86	54.5
28.02	129	81.86	23.5

Hill and Malisoff, 1926

% L_1	% L_2	sat.t.	% L_1	% L_2	sat.t.
80.38	9.55	5	69.24		92.0
80.33	8.91	10	-	8.74	97.9
80.14	8.21	15	63.88	-	106.1
79.93	7.81	20	-	12.73	114.5
79.73	7.35	25	-	13.46	116.9
79.38	7.08	30	49.85	-	122.3
78.94	6.83	35	-	19.73	123.3
78.59	6.60	40	42.02	-	124.33
77.58	6.46	50	-	27.26	124.83
76.38	6.52	60	-	32.82	125.10
74.79	6.73	70	32.82	30.44	125.15
73.53	6.89	80			

D.C.Jones, 1929

%	sat.t.	%	sat.t.
6.03	65.0 - 40.0	33.79	124.72
6.47	81.0 - 19.3	38.05	124.66
9.79	107.72- 3.11	41.30	124.05
12.72	117.40- 18.01	44.03	123.75
15.15	120.30	48.01	122.60
17.51	122.45	57.80	115.00
24.88	124.74	63.44	106.05
28.16	124.74	76.27	53.50
30.39	124.73	79.51	29.82
32.49	124.74C.S.T.	80.46	13.00
32.85	124.75	80.82	-5.00

Butler, Thomson and Maclennan, 1933

%	sat.t.	%	sat.t.
7.497	22.60	79.28	30.83
7.407	23.70	79.50	27.45
7.318	24.85	79.73	23.40
7.202	26.40	80.01	18.45
7.090	28.06		
7.016	29.18		

Reber, Mc Nabb and Lucasse, 1942

%	sat.t.	%	sat.t.
30.99	91.15	68.19	124.35
33.93	99.45	69.48	124.40 C.S.T.
35.78	103.50	75.66	124.20
39.79	110.90	77.77	123.60
42.97	115.15	78.88	123.20
47.67	119.40	83.01	120.75
51.14	121.60	84.97	118.25
55.61	123.20	87.70	112.95
50.38	124.10	90.14	104.35
63.17	124.30	91.11	98.35
67.04	124.30		

Rabinovich, Fedorov and al., 1955 (fig.)

% L_1	% L_2	sat.t.	% L_1	% L_2	sat.t.
2.5	50	4	2.5	39	80
2.5	49	20	3	33	100
2.5	46	40	4.5	24	120
2.5	44	60	10	10	125.1

Timmermans and Kohnstamm, 1910

C.S.T. = 134.2 P = 10-180

dt/dp (10-180 kg) = -0.03

Properties of phases.

Atkins and Wallace, 1913

t	d	t	d
80.95%		100%	
0.0	0.86144	0.0	0.82393
12.55	.85216	13.4	.81471
24.20	.84339	47.3	.79049
43.40	.82836		

Reilly and Ralph, 1920

%	d	%	d
20°			
		79.94	0.84770 sat.sol.
0.61	0.99711	80.64	.84627
1.04	.99653	83.03	.84196
1.61	.99566	88.06	.83298
2.00	.99502	89.26	.83068
2.27	.99474	89.96	.82919
3.05	.99356	90.96	.82736
3.95	.99202	91.97	.82543
5.05	.99068	93.02	.82367
6.11	.98936	93.98	.82038
7.06	.98793	95.06	.81962
7.32	.98771	95.97	.81790
7.90	.98687sat.sol.	96.96	.81586
		97.89	.81394
		98.93	.81174
		100.00	.80953

Wad and Gokhali, 1922

%	d	%	d
20°		25°	
100.00	0.8096	100.0	0.8066
97.83	0.8143	97.83	0.8103
96.12	0.8177	95.92	0.8142
94.41	0.8210	86.99	0.8310
92.59	0.8245	86.25	0.8324
91.22	0.8269	85.14	0.8341
89.43	0.8312	82.22	0.8396
86.99	0.8348		
86.23	0.8361	(79.81-6.96)	$L_1 + L_2$
83.63	0.8409	5.1	0.9892
82.14	0.8436	3.8	0.9911
81.45	0.8449	1.6	0.9945
(80.1-7.3)	$L_1 + L_2$	0	0.9970
5.1	0.9906		
3.8	0.9924		
1.57	0.9956		
0	0.9983		

Hill and Malisoff, 1926

t	d L_1	sat.sol. L_2
5	0.8598	0.9883
10	.8567	.9877
15	.8533	.9881
20	.8484	.9873
25	.8450	.9865
30	.8424	.9851
35	.8397	.9835
40	.8345	.9841
50	.8307	.9799
60	.8253	.9766
70	.8200	.9721
80	.8159	.9675

Mc Hutchinson, 1926

N	maximum density temperature
0.25	3.10
.125	3.90
.062	3.90

Silbereisen, 1929

t	σ (water/alcohol)
	$V + L_1 + L_2$
4	1.60
20	1.58
37	1.56

Doroschewski and Dworzanczyk, 1908

%	n_D 15°	20°
1.73	1.33526	1.33482
3.98	.33773	.33721
96.95	.40047	.39866
98.58	.40090	.39909
100	.40115	.39933

Longtin, Randall and Weber, 1941

%	D n_D
	30°
Alcohol-solution	
84.700	-0.00613
88.970	-0.00357
92.990	-0.00242
95.745	-0.00127
98.205	-0.00048
Water-solution	
1.414	+0.00127
2.513	+0.00177
4.053	+0.00391
5.690	+0.00558

Raikow, 1902

vol%	Flashing point	vol%	Flashing point
	714 mm		
3	55	50	41
7	42.75	60	41
10	42.25	70	41
20	41.25	80	40.25
30	42.00	96.4	41
40	41.50	100	35

Water + Isobutylic alcohol ($C_4H_{10}O$)

Michels, 1923

t	p	t	p
	0%		
132.32	2171.7	118.02	1420
131.96	2148	114.12	1225.5
131.87	2135	109.72	1061.0
131.79	2161	105.49	932
131.69	2134	104.82	906.5
131.32	2119.5	102.78	848
130.14	2054	102.69	844.5
127.40	1878	98.44	725
124.41	1707	96.00	661
123.29	1652	88.70	504
123.14	1651.5	80.90	372
118.59	1432		
	4.15%		
130.6	2644	94.3	829
129.4	2573	85.2	573
125.5	2299	91.4	735
122.2	2119	75.7	409
119.4	1901	70.7	324
113.9	1645	63.3	236
109.2	1389	56.1	173
104.5	1208	51.3	128
98.7	985	50.9	129
	6.49%		
133.7	3117	118.1	1968
131.9	2968	114.7	1739
127.3	2595	109.3	1499
126.3	2543	103.5	1236
123.7	2357	101.8	1117
121.6	2200	98.0	1019
	6.99%		
220.2	2152	107.8	1472
131.8	2966	104.2	1286
131.7	2977	102.3	1224
131.7	2973	97.7	956
130.8	2882	94.3	909
130.8	2883	93.3	877
128.7	2720	85.9	648
127.5	2625	76.2	438
123.5	2338	76.1	437
118.4	2020	69.7	333
117.3	1947	65.7	260
110.1	1556	65.1	270
107.9	1480	56.8	197
107.9	1478		
	9.21%		
137.4	3567	112.4	1719
133.0	3164	110.4	1616
132.1	3084	110.3	1613
127.9	2723	106.2	1396
123.2	2375	102.3	1225
116.4	1963		
	9.4%		
131.5	3006	115.8	1924
126.8	2708	109.4	1581
126.0	2578	104.6	1327
121.0	2261	98.9	1112
121.0	2258		
	30.68%		
135.8	3626	133.3	3401
	38.76%		
135.7	3625		
	41.85%		
137.4	3728	136.6	3633
47.86%		48.76%	
131.8	3186	132.9	3326
	50.18%		
138.6	3951	132.8	3361
133.2	3402	131.9	3270
	60.17%		
138.3	3877	131.4	3151
138.1	3833	131.2	3139
135.9	3604	128.9	2934
135.2	3528	128.6	2894
134.6	3464	124.3	2561
133.1	2323	123.6	2504
	60.44%		
131.0	3126	127.4	2821
131.0	3132	127.0	2775
130.9	3122	124.0	2545
127.7	2846		
	64.10%		
138.9	3390	94.9	919
133.5	3357	94.1	887
130.5	3111	87.4	692
124.9	2631	85.7	638
120.1	2261	78.9	501
		70.2	349
	85.28%		
140.8	3906	99.5	1068
135.0	3276	94.4	888
131.2	3002	88.8	717
125.5	2534	83.4	586
119.8	2127	76.6	431
114.9	1820	71.0	349
110.4	1564	64.2	262
105.5	1322		
	100%		
132.5	1779	108.2	791
132.4	1774	105.9	736
132.2	1762	105.6	734
132.2	1765	105.2	709
129.7	1627	104.2	690
129.4	1625	100.4	599
129.2	1611	100.2	807 ?
126.9	1491	99.2	566
125.3	1434	98.4	550
122.9	1312	97.1	520
120.9	1233	96.6	599 ?
119.9	1198	95.4	486
119.5	1185	91.7	414
119.3	861 ?	91.0	405
119.1	1158	90.6	394
117.6	1102	88.0	276
114.6	996	84.0	297 ?
109.4	845	82.2	275
109.4	824	76.8	215
109.3	820	70.9	167
108.7	811	60.6	102

Konowalov, 1881

t	p	t	p	t	p
100%		94.5%		50%	
14.75	5.8	16.9	17.6	12.1	14.3
30.85	17.7	40.3	65.5	41.65	82.2
50.45	55.5	59.9	176.5	46.8	107.9
60.40	94.1	71.4	299.9	59.9	207.6
70.70	160.05	81.5	457.6	71.4	355.6
80.00	246.0	95.1	784.0	71.5	356.15
91.00	395.2			80.85	530.8
99.90	570.3			81.2	537.4
				81.6	550.0
				88.55	722.4
				88.75	728.3
				89.1	738.6
6.1%		sat.sol.(40°)			
18.1	18.9	16.65	19.0		
40.3	71.7	40.8	78.8		
59.4	193.9	59.9	207.0		
70.9	331.3	71.8	360.5		
81.55	561.15	81.6	548.0		
91.0	746.05	89.0	731.6		
		97.2	991.9		

Bose, 1909

t	p	p_1	p_2
	$L_1 + L_2 + V$		
12.1	14.06	10.44	3.67
41.65	83.37	59.00	24.37
46.8	109.38	76.82	32.56
59.9	209.23	144.47	64.76
71.4	353.65	241.39	112.26
71.5	355.20	242.43	112.77
80.85	529.60	359.14	170.46
81.2	537.34	364.32	173.02
81.6	546.31	370.33	175.98
88.55	723.95	489.41	234.56
88.75	729.72	493.29	236.43
89.1	739.92	500.14	239.73

Lecat, 1949

%	b.t.
33.2	89.9 Az
100	108.0

Young and Fortey, 1902

%	b.t.
66.8	89.82
100.0	108.06

dp/dt (at b.t.) = 28.4mm

Stockhardt and Hull, 1931

mol % (L)	b.t.	mol % (V)	dew point
0.2	98.9	4.3	98.0
.3	98.1	6.9	98.0
.4	97.1	10.1	97.0
.5	96.8	11.2	96.0
.7	95.9	14.7	95.7
.9	95.1	16.3	94.8
1.2	93.4	21.8	92.8
1.4	91.9	27.0	91.8
2.0	91.5	28.6	91.8
2.2	89.9	32.2	89.5
2.5	90.1	32.7	90.1
3.2	89.5	32.8	89.1
3.3	89.5	32.6	89.1
4.1	89.6	33.1	89.5
4.6	89.5	33.0	89.2
33.1	89.2	33.2	89.2
33.0	89.2	33.4	89.2
33.0	89.2	33.2	89.2
36.2	89.4	33.1	89.2
36.4	89.4	33.0	89.2
36.5	89.4	32.9	89.2
39.2	89.4	32.8	89.2
39.5	89.4	33.1	89.2
39.8	89.5	33.5	89.3
40.1	89.5	33.3	89.3
42.4	89.5	33.3	89.4
42.8	89.5	33.3	89.3
43.1	89.5	33.9	89.3
43.6	89.5	33.9	89.5
58.1	90.1	33.9	89.4
58.7	90.2	34.0	90.1
59.5	90.2	34.5	90.2
60.3	90.3	36.5	90.2
82.8	96.0	36.7	90.2
84.1	96.6	37.4	90.0
85.0	97.1	55.4	90.0
86.5	97.7	56.3	96.2
		58.0	97.0
		59.9	97.4

33 mol % 89.8° Az

Bylewski, 1932

%	b.t.	dew point	b.t.	dew point
	760 mm		1075 mm	
0	100.000	100.000	110.000	110.000
3.05	94.104	92.042	103.868	101.251
6.60	90.504	89.695	100.004	99.043
8.22	89.635	89.625	99.127	99.884
10.80	89.621	89.621	98.880	98.880
13.56	89.621	89.620	98.880	98.880
50.96	89.620	89.620	98.880	98.880
58.27	89.621	89.620	98.879	98.880
63.47	89.620	89.620	98.880	98.879
67.23	89.620	89.620	98.880	98.880
70.20	89.621	89.621	98.884	98.883
71.04	89.625	89.625	98.888	98.884
74.83	89.647	89.647	98.921	98.889
78.88	89.761	89.743	99.054	98.909
82.76	90.086	89.979	99.361	99.216
85.59	90.439	90.070	99.799	99.485
88.46	91.019	90.227	100.481	99.510
90.76	92.156	91.242	101.613	100.712
93.05	93.660	92.722	103.289	102.310
95.62	96.488	93.974	106.211	103.893
98.95	103.874	103.213	113.730	113.137
100.00	107.894	107.894	117.729	117.729
	1490 mm		2026 mm	
0	120.000	120.000	130.000	130.000
3.05	113.784	111.642	123.632	120.362
6.60	109.667	108.362	119.484	117.824
8.22	108.588	108.266	113.588	117.530
10.80	108.176	108.169	117.684	117.495
13.56	108.167	108.166	117.499	117.484
50.96	108.167	108.167	117.490	117.484
58.27	108.167	108.165	117.490	117.483
63.47	108.165	108.166	117.491	117.485
67.23	108.168	108.166	117.487	117.486
71.06	108.175	108.167	117.502	117.491
74.83	108.225	108.200	117.561	117.532
78.88	108.384	108.360	117.733	117.689
82.76	108.726	108.577	118.110	117.946
85.59	109.199	108.763	118.630	118.314
88.46	109.994	109.036	119.546	118.720
90.76	111.154	110.321	120.741	119.911
93.05	112.919	112.023	122.550	121.620
95.62	115.952	114.227	125.709	124.003
98.95	123.651	123.030	133.637	133.011
100.00	127.702	127.702	137.812	137.812

Colburn, Schoenburn and Shilling, 1943

mol% L	mol% V	b.t.	mol% L	mol% V	b.t.
	756.2 mm			757.0 mm	
1.52	29.0	90.00	0.24	6.75	97.02
0.65	18.52	93.53	.20	5.26	97.58
.27	9.00	96.05	.06	1.22	98.80
.11	3.27	98.12			
	761.4 mm			762.0 mm	
2.08	31.6	88.0	93.8	68.9	98.95
1.93	30.4	89.4	91.1	59.8	96.73
.92	31.0	89.0	90.6	61.0	96.80
.00	22.6	90.5			
	760.0 mm			761.6 mm	
75.9	44.8	92.3	-	32.5	89.61
69.3	40.3	90.75			
57.5	34.7	89.25			
37.1	32.0	89.25			

Alexejew, 1886

%	sat.t.	%	sat.t.
11.8	113	41.58	131.5
15.3	123	56.6	125
19.4	127	56.8	126.5
22.39	129	69.3	103.5
32.23	131.5	70.3	101.0

Jänecke, 1933

%	sat.t.	%	b.t.
8.0	90.4	39.5	95.3
10.6	108.0	44.2	94.3
16.3	126.7	52.0	93.0
17.5	127.7	56.5	92.1
20.7	130.6	56.8	92.0
26.7	133.0	59.5	91.0
49.1	132.8	62.1	90.5
57.8	126.4	71.4	91.0
81.7	38.9	77.2	93.5
		79.1	94.7
		82.3	96.4

Young and Fortey, 1902

%	d	%	d
		0°	
84.81	0.84829	95.09	0.82823
86.76	.84470	97.72	.82251
88.53	.84125	100.00	.81698
91.79	.83492		

Mueller and Abegg, 1907

%	d	%	d
	25°		
0	0.9971	71.4	0.8173
0.70	.9923	77.1	.8133
2.15	.9853	85.6	.8081
2.18	.9855	100.0	.7984

Doroshevski, 1910

%	d	%	d
	15°		
100.00	0.80540	2.18	0.9960
95.16	.8161	4.66	.9922
90.76	.8249	7.26	.9888
84.75	.8367	8.13	.9878
83.63	.8392		

Brun, 1931

%	d		%	d	
	0°	20°		0°	20°
0.00	0.99868	0.99823	83.36	-	0.83724
2.64	.99582	.99412	84.65	0.84910	.83367
9.45	.98618	-	89.90	.83615	.82300
			100.00	.81810	.80406

Silbereisen, 1929

t	σ (water/alcohol)
$L_1 + L_2 + V$	
3	1.64
17	.78
22	.85
27	.86
32	.84
37	.80

Doroshevski and Dvorzhanchik, 1908

%	n_D		%	n_D	
	15°	20°		15°	20°
1.77	1.33533	1.33487	98.04	1.39729	1.39545
6.35	.34030	.33979	98.67	.39745	.39557
97.22	.39711	.39528	100.00	.39770	.39583

Brun, 1931

%	n_D	%	n_D
	20°		
0.00	1.3330	84.65	1.3922
2.64	.3356	89.90	.3930
83.36	.3917	100.00	.3940

Alexejew, 1886

%	U	%	U	
3.53	1.024	87.66	0.729	room temp.
5.62	1.032	94.12	0.691	
85.03	0.764	100.00	0.665	

Doroshevski, 1910

%	U	%	U
	16 - 100°		
100.00	0.6652	2.18	1.0048
95.16	.7057	4.66	.0031
90.94	.7364	6.76	.0090
90.76	.7368	7.26	.0191
84.75	.7696	8.13	.0281
83.63	.7755	74	.8022

Alexejew, 1886

t	Q diss.
6.56%	
1	+115.6
19.5	59.4
51.1	8.87
70.25	-26.31
81	-52.20

Bose, 1907

%	Q mix	%	Q mix	%	Q mix
20.76°		50.74°		60.72°	
8.0	2.32	8.2	0.40	8.2	-0.28
13.1	2.34	11.9	0.17	20.6	-1.01
22.4	2.02	28.0	-0.61	46.1	-2.24
30.3	1.52	44.2	-1.45	70.5	-3.90
37.0	1.08	55.6	-2.18	79.2	-4.23
47.9	0.35	68.1	-2.81	89.5	-3.66
60.5	-0.48	74.5	-3.27		
70.2	-1.15	78.1	-3.42		
77.3	-1.57	83.4	-3.45		
82.7	-1.71	88.2	-3.10		
86.8	-1.65	90.5	-2.71		
87.2	-1.62	93.5	-2.04		
89.2	-1.53				
90.2	-1.48				

Raikow, 1902

vol%	Flashing point	vol%	Flashing point
	714 mm		
2	59.50	40	33.75
3	52.25	50	33.50
5	44.25	60	33.75
9	36	70	33.75
10	34.75	83	33.75
20	34.75	90	33
30	34.25	100	27.50

Young and Fortey, 1902

mol%	t initial	t final
60	22.3	19.15

Dilution with much water, Dt = +1.0°

Water + sec. Butyl alcohol ($C_4H_{10}O$)

Boeke and Hanewald, 1942

% (V)	b.t.	% (V)	b.t.
98.8	98.4	91.8	94.2
98.3	98.2	89.0	93.0
97.3	97.7	87.2	92.1
95.8	97.2	82.8	90.9
97.0	97.0	82.5	90.0
95.0	96.3	81.7	89.8
94.4	96.3	80.0	89.7
94.3	95.8	78.5	89.0
92.5	95.2	78.0	88.7
92.7	94.8	77.2	88.7

% (L)	b.t.	% (L)	b.t.
1.3	96.0	80.5	87.5
1.7	95.1	81.6	87.5
3.8	92.7	84.1	87.6
4.5	92.5	85.3	87.7
4.6	91.8	86.4	87.8
5.4	91.7	87.5	88.0
6.5	91.0	91.0	88.7
5.0	90.8	91.2	88.7
7.0	90.6	93.6	89.6
8.1	89.7	94.8	90.6
9.1	89.5	96.6	91.7
9.8	89.5	97.4	92.8
10.4	89.0	98.2	94.0
11.4	88.7	98.6	95.0
12.1	88.7	99.0	96.0
12.8	88.2	99.6	97.4
15.6	87.5	99.9	98.3
16.8	87.5		

Az 73%

Lecat, 1949

%	b.t.	Dt.
0	100	-
68	-	-1.5
70	87.8	Az
100	99.52	-

Timmermans and Kohnstamm, 1910

C.S.T.	P	dt/dp
116	5 - 125	-0.07

Timmermans, 1911

%	C.S.T. upper	C.S.T. lower	f.t.
	1st sample		
14.0	78.0	55.0	-17
15.9	98.0	38.5	"
21.0	107.0	20.0	"
23.8	110.8	-	"
34.0	113.5	-	-
45.0	113.2	-	-
54.0	108.6	-	-
63.0	94.0	13.0	-1
64.0	87.0	20.0	-6
65.5	77.0	29.0	-11
	2nd sample		
14.90	89.5	43.5	-
21.00	107.7	19.0	-
26.35	112.5	4.0	-
36.00	113.8	-	-17
46.00	112.8	-	"
55.95	107.1	-	"
63.00	93.0	13.5	-1
64.50	82.6	23.0	-7.5
65.95	-	-	-12.5

Alexejew, 1886

%	sat.t.	%	sat.t.
14.7	56 - 72	54.9	97.5
15.9	34 - 88.3	55.2	96.1 - 10.1
17.1	32 - 97.6	60.3	84.5 - 20.9
20.1	24 -101.5	62.4	77.1 - 28.5
48.8	102.5		

%	2nd sat.t.	%	2nd sat.t.
25.06	-19	58.70	-7
27.06	-7	55.53	0
30.20	0	52.90	+5
27.06	+7	55.53	10
23.47	+17	58.70	17

Timmermans, 1907

%	sat.t.	%	sat.t.
14.87	72.0 and 56.0	46.00	107.5
25.84	106.4 and 12.0	54.02	97.4
34.69	113.7	65.65	-16.5

Dolgolenko, 1907

%	sat.t. upper	sat.t. low	
14.59	73.0	58.0	sample A
14.83	77.6	53.5	
15.51	83.8	46.3	
18.15	95.2	32.5	
18.77	96.9	29.9	
21.77	103.0	21.9	
28.55	106.8	11.2	
29.76	107.0	9.9	
35.76	106.9	7.0	
43.36	105.7	8.6	
48.92	103.2	11.3	
53.77	97.7	15.7	
55.02	96.0	17.2	
58.19	90.3	22.4	
59.89	85.7	26.5	
62.96	73.0	37.3	
63.18	71.7	38.3	

%	sat.t. upper	sat.t. low	sat.t. third	
13.60	85.5	44.9	-	sample B
15.32	95.5	33.1	-	
19.02	106.4	18.0	-	
20.28	109.1	14.4	-23.4	
22.81	112.1	6.2	-21.0	
23.89	112.9	1.2	-14.9	
25.18	113.5	-	-	
27.60	114.3	-	-	
31.23	114.8	-	-	
35.20	114.9	-	-	
40.09	114.5	-	-	
43.31	114.0	-	-	
45.27	113.4	-	-	
48.45	112.1	-	-	
49.71	111.4	-	-	
53.79	106.9	-	-	
55.18	105.1	-	-	
59.73	97.0	-	-	
61.09	93.4	5.9	+0.7	
61.63	92.0	10.0	-2.3	
63.65	85.8	18.2	-7.5	
65.64	76.2	27.6	-	
66.68	62.0	40.2	-	
			sample C	
17.2	99.5	28.47	-	
19.59	105.3	20.30	-	
21.46	108.1	14.97	-	
23.96	111.4	8.07	-	
25.95	112.5	1.02	-8.4	
26.33	112.7	-2.6	-4.3	
56.20	103.0	-	-	
57.89	99.9	-	-	
59.16	97.5	+2.32	+2.22	
59.88	95.4	8.02	-2.3	
60.34	94.5	9.72	-3.5	
61.46	91.6	13.22	-5.7	

Timmermans, 1922

P kg	sat.t.	dt/dp
1	- 8.45 (C.S.T.)	
100	+ 5.3	+0.1375
200	17.8	+0.123
300	24.8	0.070
400	30.8	0.060
500	36.7	0.059
600	42.7	0.060
700	49.6	0.069
800	58.6	+0.090
840	homogeneous	-
800	73.5	-0.078
700	81.3	-0.045
600	85.8	-0.041
110	105.3	-0.071
1	113.8	

P kg	sat.t.	dt/dp
101	+ 4	-
100	+ 3.5	+ 0.5
99	+ 2.5	+ 1.0
98	+ 2.0	+ 0.5
100	0	-
109	- 3.5	- 0.5
117	- 5.5	- 0.4
126	- 6.5	- 0.25
135	- 7.5	- 0.1
150	- 9.0	- 0.1

Delcourt, 1927

%	sat.t. upper		sat.t. lower	f.t.
14.93	87.5	and	44.4	-
21.25	107.9	"	19	-
44.60	112.9	"	-	-
61.27	91.5	"	13.6	- 6.6
62.61	87.2	"	17.8	- 8.2
63.35	84.6	"	20.1	- 9.4
66.50	65.4	"	37.4	-13.5

Clough and Johns, 1923

%	d	%	d
	20°		
0	0.9982	73	0.8614
1	.9968	74	.8594
2	.9954	75	.8574
3	.9940	76	.8554
4	.9926	77	.8534
5	.9933	78	.8514
6	.9898	79	.8493
7	.9884	80	.8473
8	.9870	81	.8453
9	.9856	82	.8433
10	.9842	83	.8413
11	.9828	84	.8393
12	.9814	85	.8373
13	.9800	86	.8352
14	.9786	87	.8332
15	.9772	88	.8311
16	.9758	89	.8291
17	.9744	90	.8270
17.85	.9732	91	.8249
		92	.8229
64.17	.8792	93	.8208
65	.8775	94	.8187
66	.8776	95	.8167
67	.8737	96	.8147
68	.8716	97	.8127
69	.8646	98	.8107
70	.8675	99	.8085
71	.8655	100	.8063
72	.8634		

Boeke and Hanewald, 1942

%	mol%	d	Dv(%)
	21°		
	L_1		
1.65	0.42	0.9956	0.14
3.26	0.83	.9932	.28
4.90	1.24	.9916	.47
6.56	1.70	.9890	.63
8.24	2.16	.9868	.80
9.92	2.64	.9846	1.00
11.62	3.14	.9825	.18
13.33	3.65	.9803	.43
16.79	4.80	.9753	.61
18.54	5.38	.9732	.79
sat.sol.(L_1)		.9712	-
	L_2		
sat.sol.(L_2)		0.8758	-
65.34	31.47	.8758	1.38
67.51	33.58	.8713	.30
71.89	38.34	.8629	.23
76.37	44.00	.8546	.18
80.92	50.78	.8459	.08
85.56	58.99	.8370	0.90
90.28	69.29	.8276	.73
95.10	82.50	.8170	.38
100.00	100.00	.8062	-

Water + tert.Butylalcohol ($C_4H_{10}O$)

Benjamin, 1932

mol%	p	mol%	p
40°			
0.0	54.7	61.6	67.7
19.6	61.7	68.5	67.0
31.4	63.5	80.0	64.0
42.5	65.0	100.0	54.4

mol% L	mol% V	mol% L	mol% V
40°			
8.7	32.5	83.0	61.0
12.5	42.3	87.0	72.5
32.2	51.0	100.0	100.0

Young and Fortey, 1902

%	b.t.
88.24	79.92 Az
100	82.55

dp/dt (at b.t.) = 29.7 mm

mol%	t initial	t final
60	26.25	25.20

Dilution with much water, Dt = +4.0°

Doroshevski and Dolyanski, 1910

%	b.t. 700mm	b.t. 760mm	%	b.t. 700mm	b.t. 760mm
0	97.72	100	59.88	78.71	80.76
9.91	83.81	85.97	69.98	78.56	80.62
19.97	79.82	81.89	79.86	78.21	80.31
29.96	79.15	81.19	90.03	77.90	79.96
39.92	78.87	80.91	100.00	80.46	82.57
49.96	78.82	80.86			

Paterno and Mieli, 1908

%	f.t.	%	f.t.
100.00	+25.4	63.510	0.0
98.66	18.8	63.194	0.0
98.65	18.7	59.149	-0.1
97.47	13.2	57.990	0.1
96.36	10.1	56.010	0.3
95.45	7.4	53.870	0.4
94.26	4.8	53.210	0.4
93.35	+2.8	50.640	0.6
92.00	0.0	47.770	0.9
90.59	-1.9	45.510	1.0
88.94	4.2	42.710	1.8
88.85	4.2	38.838	2.4
88.83	4.3	35.923	3.7
87.973	4.8	32.047	6.4
86.72	4.4	29.972	9.6
85.03	3.0	24.680	11.7
83.35	2.8	23.760	10.9
79.39	1.1	22.564	10.7
78.61	1.0	19.263	8.7
74.92	-0.3	17.829	7.6
71.445	0.0	11.190	3.8
70.89	0.0	7.740	2.4
67.64	0.0	5.789	-1.5
67.14	0.0	0.000	0

Ross, 1954 (fig.)

%	f.t.	%	f.t.
10	-3	90	-3
20	-8	95	+7
22	-9	98	+15
30	-9	100	+25.5
40	-9		
50	-9		

Young and Fortey, 1902

%	d 20°	d 25°
73.25	0.84832	0.84405
80.42	.83146	.82703
86.00	.81820	.81364
90.58	.80718	.80268
94.24	.79878	.79415
97.36	.79128	.78653
100.00	.78553	.78056

Paterno and Mieli, 1908

%	d	%	d
0°		24°	
00.00	0.999874	0.0000	0.997367
79.39	.854250	63.1938	.870300
92.09	.829410	71.4454	.851300
		87.8503	.811750
		100.0000	.783390
29.4°		49°	
0.00	0.996649	0.00	0.98860
79.39	.825170	79.39	.80372
92.08	.795400	100.00	.75319
100.00	.776980		

%	d	%	η(water=1)
70°		24°	
0.00	0.9779	0.00	1.00
79.39	.7791	63.19	5.30
100.00	.7263	71.45	5.21
		87.85	5.04
		100.00	4.99

Doroshevski, 1911

%	d 20°	d 25°	%	d 20°	d 25°
0	0.9983	0.9971	60	0.8793	0.8752
10	.9840	.9820	70	.8558	.8516
20	.9698	.9668	80	.8323	.8279
30	.9491	.9454	90	.8088	.8042
40	.9259	.9221	100	.7856	.7806
50	.9026	.8987			

Irany, 1944

vol%	mol%'	d	vol%	mol%	d
		25°			
0.0	0.0	0.9971	65.5	26.6	0.8765
10.0	2.1	.9853	77.2	39.2	.8760
19.1	4.3	.9743	88.2	58.4	.8173
29.3	7.3	.9583	100.0	100.0	.7810
45.5	14.0	.9230			

vol%	mol%	η	vol%	mol%	η
		25°			
0.0	0.0	895	65.5	26.6	4710
10.0	2.1	1340	77.2	39.2	4800
19.1	4.3	1930	88.2	58.4	4580
29.3	7.3	2640	100.0	100.0	4430
45.5	14.0	3790			

Doroshevski, 1911

%	n_D	%	n_D
	25°		
0	1.33284	59.96	1.37585
9.99	.34316	69.84	.37935
19.97	.35330	79.92	.38220
29.96	.36056	89.92	.38411
39.98	.36635	100.00	.38548
49.96	.37147		

Benjamin, 1932

mol%	n_{He}	mol%	n_{He}
	20°		
0.0	1.33279	68.8	1.38521
15.0	.36914	76.9	.38671
20.8	.37482	100.0	.38799

Åkerlöf, 1932

%	ε 20°	ε 40°	ε 50°	ε 60°	ε 80°
0	80.37	73.12	69.85	66.62	60.58
10	71.75	64.91	61.84	58.83	52.87
20	62.93	56.77	53.82	50.87	45.14
30	54.17	48.33	45.44	42.96	38.47
40	45.38	40.01	37.35	34.93	30.59
50	36.59	32.16	29.80	27.80	24.24
60	28.91	25.02	23.01	21.30	18.41
70	22.30	19.00	17.41	16.29	13.94
80	17.23	14.60	13.44	12.51	10.45
90	12.97	10.93	10.00	9.36	7.66
100	-	8.44	7.67	6.96	5.90

Raikow, 1902

vol%	Flashing point
712 mm	
2	56.75
5	41.50
10	30.25
15	23.25
20	15.75
25	14
30	14.75
40	16
50	16.25
60	16.25
70	16.25
80	15.25
90	14
97.5	11.50

Water + n-Amyl alcohol ($C_5H_{12}O$)

Lecat, 1949

%	b.t.
46.3	95.95 Az
100	138.20

Morgan and Evans, 1917

t	100%	σ L_1	L_2
0	24.45	24.25	26.40
15	23.35	23.25	25.72
25	22.62	22.57	25.22
35	21.89	21.90	24.80
45	21.16	21.24	24.36
55	20.43	20.58	23.90

Jasper, Farrell and Madoff, 1944

mol%	n_D	mol%	n_D
	25°		
0.00	1.3479	20.10	1.3781
0.88	.3510	23.81	.3802
1.83	.3537	28.21	.3823
2.88	.3565	33.54	.3835
4.03	.3591	40.24	.3852
5.29	.3612	48.79	.3867
6.72	.3634	60.25	.3879
8.03	.3659	65.97	.3889
10.08	.3659	72.58	.3896
12.05	.3688	80.27	.3900
14.39	.3705	89.24	.3904
17.03	.3732	100.00	.3908

Water + Isoamyl alcohol ($C_5H_{12}O$)

Brun, 1931

%	b.t.	%	b.t.
	760 mm		
0.00	100.00	89.50	101.00
3.00	95.50	95.00	114.50
50.00	94.50	97.00	118.00
60.00	94.50	100.00	129.50

Young and Fortey, 1902

Az. 50.4% 95.15° 100% b.t.=132.05°

Lecat, 1949

%	b.t.
50.5	95.1 Az
100	131.9

Kosakewitsch P.P. and M.S., 1933

mol%	d	σ
	25°	
0	0.808	23.70
3.33	.809	23.73
5.03	.810	23.75
8.08	.812	23.85
12.80	.815	24.17

Raikow, 1902

vol%	Flashing point
1.3	62.25
92	47
100	42

Water + Tert. amyl alcohol ($C_5H_{12}O$)

Raikow, 1902

vol%	Flashing point
714 mm	
2.5	46.75
5	37.50
7.5	32.50
10	29.25
20	26.75
30	26.75
40	26.25
50	26.25
60	26.25
70	26.25
82	26.25
90	26.25
100	19.50

Water + Amyl alcohol (mixture) ($C_5H_{12}O$)

Pierre and Puchot, 1871 - 1872

Az : 60 vol % 96° 100 % b.t. = 130°

Fontein, 1910

%	sat.t.	%	sat.t.
2.23	36 and 58	19.27	186.0
2.31	29 " 72	25.02	186.5
2.43	23 " 81	36.61	187.5
2.55	18 " 87	39.93	187.4
2.60	16.5" 91	44.11	186.5
2.72	15 " 95	49.85	185.2
2.78	14 " 98	56.36	181.3
3.38	7 " 112	62.76	174.0
3.96	-0.5" 126	70.92	157.3
4.95	140	75.93	141.6
5.44	145	80.18	122.3
5.87	148.5	80.04	97.3
8.68	167.0	87.39	69.5
9.68	171.2	89.82	34.0
14.48	182.5	90.69	15.5

Water + Alcohols.

Lecat, 1949

Name	Formula	b.t.	Az %	Az b.t.
Methylpropyl carbinol	($C_5H_{12}O$)	119.8	61.5	92.5
Methylisopropyl carbinol	($C_5H_{12}O$)	112.0	67	91.0
Diethylcarbinol	($C_5H_{12}O$)	116.0	64	91.8
Dimethylethyl carbinol	($C_5H_{12}O$)	102.35	72	87.35
Hexyl alcohol	($C_6H_{14}O$)	157.85	25	97.8
Ethyl-2-butanol	($C_6H_{14}O$)	148.9	58	96.7
Heptanol	($C_7H_{16}O$)	176.15	17	98.7
Octanol	($C_8H_{18}O$)	195.2	10	99.4
Ethyl-2-hexanol	($C_8H_{18}O$)	183.5	20	99.1

Water + 2-Methyl-3-butyne-2-ol (C_5H_8O)

Conner, Elving and al., 1950

t	L wt%	L mol%	V wt%	V mol%
		770 mm		
104.4	100	100	100	100
95.4	95.0	81.1	86.7	58.3
92.3	88.2	61.7	78.6	44.0
91.0	75.0	39.1	72.0	35.6
91.1	49.5	17.2	68.5	31.9
91.3	40.5	12.8	68.4	31.8
91.7	20.7	5.3	66.4	30.0
94.3	6.7	1.5	54.0	20.0
96.7	3.3	0.7	39.1	11.1
98.2	2.0	0.4	28.9	8.0
99.0	1.5	0.3	19.3	4.9
99.6	0.8	0.2	11.2	2.6
100.4	0.0	0.0	0.0	0.0

t	p	t	p
	100 %		
21.6	12.9	73.0	228.7
33.2	27.6	77.1	272.0
42.3	48.5	81.0	317.3
49.2	70.0	84.7	367.1
54.0	91.8	90.0	453.1
55.6	101.4	93.4	511.4
59.7	123.0	96.6	578.5
64.3	154.0	99.0	632.8
69.4	194.1	106.2	805.6

wt %	mol %	n_D
	20°	
100	100	1.4206
80	46.2	.4104
60	24.3	.3959
40	12.5	.3783
20	5.1	.3576
0	0.0	.3330

Water + Allyl alcohol (C_3H_6O)

Benjamin, 1932

mol% L	mol% V	mol% L	mol% V
40°			
17.6	41.2	82.9	90.3
31.3	46.7	93.1	96.7
52.3	55.7	100.0	100.0
70.4	84.1		

mol%	p	mol%	p
40°			
0.0	54.4	71.0	70.0
17.7	61.0	83.7	65.0
31.8	67.5	93.2	61.5
52.3	72.0	100.0	58.0

Ewert, 1936

mol%	p 21°	p 25°	p 30°	p 35°	p 40°
0.0	18.6	23.7	31.9	42.1	55.4
10.0	25.9	32.6	43.7	59.1	78.8
20.0	28.5	35.8	47.7	63.7	82.8
30.0	29.8	36.7	48.9	65.0	84.1
40.0	29.6	37.2	49.4	65.5	84.9
50.0	29.6	37.3	49.3	65.6	85.0
60.0	29.4	37.0	48.9	64.8	84.5
70.0	29.1	36.8	47.8	62.9	82.5
80.0	28.2	36.2	45.9	58.9	78.7
90.0	26.3	32.7	42.4	53.7	72.3
100.0	22.8	28.1	36.3	47.1	61.2

mol%	p_2	p_1	mol%	p_2	p_1
40°					
0.0	-	55.4	60.0	48.3	36.2
10.0	27.9	50.9	70.0	50.6	31.9
20.0	35.8	47.0	80.0	53.2	25.5
30.0	40.4	43.7	90.0	56.8	15.5
40.0	43.6	41.3	100.0	61.2	-
50.0	46.3	38.7			

Dittmar and Stewart, 1875

%	b.t.	%	b.t.
5	87.5	84	87.5
40	87.0	86	88
50	87.5	88	89
60	87.5	90	89
70	87.5	92	89.5
76	87.5	94	90
78	87.5	96	91.5
80	87.5	98	93
82	88.0	100	95.5

Lecat, 1949

%	b.t.
0	100
72.5	88.05 Az
100	96.95

Abegg, 1894

M	f.t.	M	f.t.
0.5005	-0.932	3.003	-6.705
1.0010	-1.893	4.004	-9.605
2.0020	-4.100	5.005	-12.245

Benjamin, 1932

mol%	f.t.	mol%	f.t.
10	-12.0	70	-41.0
20	-15.3	80	-59.0
30	-17.5	86.7	-81.9
40	-19.7	89.4	-112.5
50	-23.2	95	vitreous
60	-31.6	100	"

Dittmar and Stewart, 1875

%	d	%	d
15°			
100	0.8572	92	0.8734
98	.8610	76	.9026
96	.8656	5	.9991
94	.8694		

Wallace and Atkins, 1912

%	d	%	d
0°			
0.00	0.999868	62.49	0.93443
14.24	.991210	65.05	.93077
26.16	.985470	76.69	.91223
40.30	.967460	88.90	.88992
57.00	.943050	100.00	.86931
60.51	.937430		

Atkins and Wallace, 1913

t	d	t	d
76.60%		100%	
0.0	0.91224	0.0	0.87028
13.0	.90125		
22.35	.89340		
45.70	.86984		

Dunstan, 1904-5

%	η	%	η
	25°		
0.0	891	47.31	1887
14.06	1349	47.82	1891
25.98	1682	48.56	1892
33.70	1789	56.63	1891
35.53	1834	65.00	1796
36.53	1846	69.56	1750
45.21	1888	83.20	1537
46.88	1895	100.00	1232

Benjamin, 1932

mol%	n_{He}	mol%	n_{He}
	20°		
0	1.33279	60.9	1.40627
17.6	.38527	79.4	.41074
37.3	.39495	93.1	.41213
52.3	.40211	100.0	.41282

Raikow, 1902

vol%	Flashing point
765 mm	
2	66.50
5	54.50
10	41.75
20	33.00
30	30.50
40	30.00
50	29.75
60	29.25
70	28.50
80	27.50
90	25.75
100	21.50

Water + Oxyacetone ($C_3H_6O_2$)

Kling, 1905

%	min.of flow	%	min.of flow	
		17°		
0	177	65.0	417	
5.9	189	67.0	434	
13.3	212	67.5	436	
21.0	237	68.0	436	
27.5	259	69.0	430	
31.3	273	71.0	425	
34.2	290	75.0	437	
37.1	306	79.0	453	
39.9	320	81.0	450	
42.5	333	86.0	443	
45.7	337	87.5	440	
49.0	360	89.0	438	
51.0	375	91.0	430	(1+1) (2+1)
54.0	380	95.0	395	
58.0	390	100.0	382	(4+1)
62.0	410			

Water + 3-Hydroxy-2-butanone ($C_4H_8O_2$)

Blom and Efron, 1945

% L	% V	b.t.	% L	% V	b.t.
0.0454	0.0594	99.8	17.4	16.5	100.0
.0482	.115	-	22.4	19.8	-
.0933	.127	-	27.8	22.8	-
.0987	.167	-	34.1	25.5	-
.184	.262	-	40.9	28.7	100.5
.230	.270	-	49.2	32.1	-
.469	.651	-	56.9	35.5	-
.471	.599	-	66.9	39.0	-
.882	1.26	-	72.8	42.0	-
.960	1.22	-	81.2	47.9	-
4.48	5.65	-	87.6	54.7	-
8.88	9.91	-	92.2	64.2	-
13.4	13.7	-	93.4	75.9	-
15.1	14.9	99.8	97.0	84.3	-
17.0	16.8	-	98.9	96.8	-

%	b.t (Az) 762	760
15.0	99.94	99.87

Water + Diacetone alcohol ($C_6H_{12}O_2$)

Hack and Van Winkle, 1954

t	mol% L	mol% V	wt% L	wt% V
760 mm				
99.75	0.39	0.76	2.5	4.7
99.70	0.82	1.28	5.1	7.7
99.70	1.82	2.11	10.7	12.2
99.50	2.46	2.62	14.0	14.8
99.50	2.85	2.83	15.9	15.8
99.70	3.78	3.12	20.2	17.2
99.90	7.83	3.98	35.4	21.1
100.00	11.42	4.60	45.4	23.7
100.20	18.37	5.88	59.2	28.7
100.70	24.62	6.86	67.8	32.2
102.20	38.88	8.85	80.4	38.5
109.10	59.64	12.88	90.5	48.8
109.10	61.05	12.88	91.0	48.8
400 mm				
82.75	0.40	0.52	2.5	3.2
82.70	0.98	1.10	6.0	6.7
82.70	1.62	1.64	9.6	9.7
82.60	1.88	1.84	11.0	10.8
82.80	3.85	2.81	20.5	15.7
82.75	7.77	3.62	35.2	19.5
83.10	11.92	4.19	46.6	22.0
83.30	17.82	4.69	58.3	24.1
83.80	25.40	5.71	68.7	28.1
85.00	34.69	6.71	77.4	31.7
86.75	45.25	8.35	84.2	37.0
91.20	61.65	11.55	91.2	45.7
100.50	80.60	18.68	96.4	59.9
108.90	89.97	26.21	98.3	69.6
200 mm				
66.45	0.23	0.25	1.5	1.6
66.45	0.23	0.27	1.7	1.7
66.40	0.48	0.52	3.0	3.2
66.50	0.54	0.53	3.4	3.3
66.70	1.03	0.93	6.3	5.7
66.75	1.64	1.30	9.7	7.8
66.76	3.55	2.07	19.2	12.0
66.80	6.04	2.82	29.3	15.8
66.80	8.85	3.36	38.5	18.3
67.30	13.76	3.68	50.7	19.7
67.60	19.99	4.15	61.7	21.8
67.50	23.78	4.38	66.8	22.8
68.24	29.02	4.87	72.5	24.8
68.72	34.05	5.46	76.9	27.2
70.20	40.43	5.90	81.4	28.8
74.70	59.64	9.48	90.5	40.3
80.40	73.10	13.76	94.6	50.7
98.40	73.89	35.75	99.0	76.2
100 mm				
51.60	0.17	0.12	1.1	0.8
51.70	0.44	0.36	2.8	2.3
51.70	2.11	1.29	12.2	7.8
51.75	4.12	2.23	21.7	12.8
52.10	8.02	3.01	36.0	16.7
52.15	12.01	3.44	46.8	18.7
52.30	20.19	3.96	62.0	21.0
53.10	26.20	4.50	69.6	23.3
53.70	36.85	5.50	79.0	27.3
55.80	50.06	7.37	86.6	33.9
59.20	65.67	10.67	92.5	43.5
73.40	91.06	23.70	98.5	66.7
50 mm				
38.20	0.48	0.32	2.0	3.0
38.21	2.03	0.98	11.8	6.0
38.25	4.26	1.84	22.3	10.8
38.90	8.22	2.93	36.6	16.3
39.20	11.59	3.29	45.8	18.0
39.40	16.54	3.62	56.1	19.5
39.70	25.84	4.28	69.2	22.4
40.20	36.57	5.37	78.8	26.8
42.00	45.63	6.49	84.4	30.9
45.80	66.66	10.44	92.8	42.9
52.80	86.32	18.25	97.6	59.0
64.90	93.88	29.23	99.0	72.7

Az

wt%	mol%	b.t.	p
3.3	0.53	66.40	200
10.5	1.79	82.60	400
15.7	2.81	99.50	760

Water + 3-Hydroxy-3-methyl-2-butanone ($C_5H_{10}O_2$)

Conner, Elving and al., 1950

t	L wt%	L mol%	V wt%	V mol%
770 mm				
141.0	100.0	100.0	100.0	100.0
129.5	96.0	81.3	91.5	65.7
121.0	95.1	77.8	84.6	49.1
114.0	94.6	76.0	75.7	35.7
104.0	91.7	66.2	61.5	21.8
102.8	89.8	60.9	57.1	18.8
100.5	86.0	51.9	52.0	16.0
99.3	69.8	28.9	45.2	12.7
99.1	59.8	20.7	43.5	12.0
98.9	49.4	14.7	41.8	11.3
98.8	44.1	12.5	40.9	10.0
99.0	37.7	9.7	39.3	10.3
99.0	30.6	7.3	37.0	9.5
99.0	27.8	6.4	33.0	9.1
99.1	22.4	4.9	30.9	8.1
99.3	18.9	3.9	24.1	7.4
99.8	11.1	2.1	21.1	5.4
99.9	9.0	1.6	19.2	4.5
100.0	7.7	1.4	19.2	4.0
100.1	5.3	0.8	15.0	3.0
100.2	4.5	0.7	13.1	2.5
100.3	3.7	0.5	11.4	2.1
100.3	3.0	0.4	9.6	1.6
100.3	0.0	0.0	0.0	0.0

t	p	t	p
100 %			
44.7	18.8	121.5	398.3
54.7	30.6	123.4	426.3
63.4	44.4	126.4	468.9
70.8	62.7	131.8	549.2
79.9	93.1	134.2	585.1
89.2	130.0	137.4	644.7
97.0	176.8	144.0	776.6
103.8	225.1	145.7	815.8
111.4	289.3		

wt%	mol%	n_D	wt%	mol%	n_D
20°					
100	100	1.4148	40	10.5	1.3763
90	61.4	.4124	20	4.2	.3552
80	41.3	.4076	0	0.0	.3328
60	20.9	.3939			

Water + Alcohols

Lecat, 1949

Name	Formula	b.t.	Az %	Az b.t.	Dt.min.
4-Hydroxy-4 Methyl-2-pentanone	($C_6H_{12}O_2$)	165	12.7	98.8	-
Methoxyethanol	($C_3H_8O_2$)	124.5	18.5	99.75	+22.0 (43%)
Ethoxyethanol	($C_4H_{10}O_2$)	135.3	30	99.3	+ 9.0 (44%)
Ethoxyethanol	($C_4H_{10}O_2$)	133	60	92.2	*
Propoxyethanol	($C_5H_{12}O_2$)	151.35	28	98.75	+ 7.5 (45%)
Butoxyethanol	($C_6H_{14}O_2$)	171.15	24	99.05	+ 3.6 (47%)

*Carbide and C°

Water + Methoxyethanol ($C_3H_8O_2$)

Timmermans, 1956-57

mol%	f.t.	mol%	f.t.
0	0	21.4	-49.0
10.6	-14.3	34.7	-96.5
20	-45	100.0	-92

Water + Ethoxyethanol ($C_4H_{10}O_2$)

Timmermans, 1957

%	f.t.	%	f.t.
0	0	52.1	-34.45
15.5	- 6.05	69.25	-65.50
39.8	-21.30	100	vitreous

Baker, Hubbard, Michalowski and al., 1939

mol % L	mol % V	mol % L	mol % V
	30°		
0.1	0.7	33.6	14.5
0.7	2.8	34.8	14.7
1.5	3.7	33.7	15.0
2.0	4.5	40.0	16.1
3.0	5.0	41.8	16.7
3.7	5.7	44.1	17.1
4.5	6.1	45.9	18.1
5.5	6.2	47.2	18.6
6.5	7.2	53.6	21.4
7.5	7.7	60.6	25.2
8.5	8.1	63.0	26.8
9.3	8.4	64.0	28.8
10.5	8.9	74.0	34.6
11.4	9.2	79.9	39.5
12.5	9.2	92.0	41.2
14.0	9.9	86.5	45.9
19.7	11.3	88.4	48.8
21.7	11.9	91.0	52.3
23.4	12.2	93.6	55.4
31.3	14.0	95.8	62.0
32.0	14.2	98.2	71.2

mol %	n_D	mol %	n_D
	30°		
100	1.4038	30	1.3920
95	.4036	25	.3887
90	.4034	20	.3845
85	.4032	18	.3822
80	.4029	16	.3793
75	.4026	14	.3758
70	.4022	12	.3720
65	.4017	10	.3676
60	.4012	8	.3626
55	.4005	6	.3568
50	.3996	4	.3500
45	.3983	2	.3413
40	.3967	0	.3315
35	.3946		

Water + Propoxyethanol ($C_5H_{12}O_2$)

Timmermans, 1957

%	f.t.	%	f.t.
0	0	58.5	-15.1
22.0	- 5.35	100	vitreous
40.3	-10.0		

Water + Isopropoxyethanol ($C_5H_{12}O_2$)

Timmermans, 1956-57

mol%	f.t.	mol%	f.t.
0	0	19.9	-19.5
3.0	-2.8	20.0	-19.5
5.4	-7.5	29.3	-29.7
10.3	-15.1		

Water + Butoxyethanol ($C_6H_{14}O_2$)

Cox and Cretcher, 1926

%	sat.t. lower	sat.t. upper	%	sat.t. lower	sat.t. upper
9.18	75	86	34.42	50.1	126.8
9.94	65.8	97.0	39.67	51.3	125.3
11.45	57.6	109.3	44.95	53.5	122.9
14.94	51.6	120.4	50.08	58.0	117.8
19.94	49.6	126.8	55.08	67.1	107.7
24.78	49.1	128.0	57.87	80	94
30.03	49.6	127.7			

Poppe, 1935

%	sat.t. lower	sat.t. upper
11.44	50.10	123.50
24.88	47.50	134.90
44.86	50.20	132.50
53.11	57.30	124.90
54.92	73.70	105.80

P	sat.t. lower	P	sat.t. lower
3.25	47.50-47.80	758	77.10
66.7	50.00	857	80.20
71.75	49.85-50.70	894.5	82.10
96.75	50.85-51.75	916	83.30
122.50	-52.85	935	84.40
166.7	53.90	945.5	85.30
270.7	57.90	1015	99.15
363.3	61.47	1055	96.15
461.5	65.3	1080	94.15
559.0	69.10	1085	homogeneous
661	72.75		

P	sat.t. upper
5.75	132.70-131.60
71.75	130.55-129.45

Next Page

Chakhovskoy, 1956

%	sat.t. L_1	sat.t. L_2	%	sat.t. L_1	sat.t. L_2
8.04	68.1	86.1	35.77	45.0	131.6
8.50	62.1	96.3	40.40	46.6	130.6
10.50	50.0	114.7	48.60	50.7	123.3
14.90	46.5	126.6	50.30	51.7	124.4
23.50	44.5	133.2	55.60	61.0	115.0

C.S.T. L_1 : 27% 44.5 L_2 : 26.7% 135.5

Poppe, 1934

C.S.T. lower 47.7° dt/dp = +0.040

Water + n-Butoxyethanol ($C_6H_{14}O_2$)

Timmermans, 1957

%	f.t.	
18.2	-2.05	
36.8	-4.0	
54.65	-6.0	L_1 + L_2
67.4	-6.7	
100	vitreous	

Water + Isobutoxyethanol ($C_6H_{14}O_2$)

Cox and Cretcher, 1926

%	sat.t. lower	sat.t. upper	%	sat.t. lower	sat.t. upper
7.57	54.5	101.5	47.46	27.1	147.9
9.94	36.6	126.1	55.80	38.9	142.6
16.68	25.9	145.0	61.80	47.6	132.9
24.51	24.6	150.0	66.13	47.6	120.6
31.54	24.7	150.2	67.70	51.0	114.5
39.70	25.5	149.3			

Water + 1-Propoxypropane-2-ol ($C_6H_{14}O_2$)

Cox, Nelson and Cretcher, 1927

%	sat.t. lower	sat.t. upper	%	sat.t. lower	sat.t. upper
10.7	75.0	125.5	45.2	35.0	171.2
13.1	57.7	145.0	55.0	36.6	168.0
14.9	49.8	154.0	60.4	39.3	162.0
20.0	39.5	165.5	65.2	42.7	155.5
24.8	35.9	170.0	69.7	49.3	144.0
35.5	34.5	171.7	74.7	71.0	114.0

0% b.t. = 148.5-149°/730 mm d^{20}= 0.8886

Water + 2-Propoxypropane-1-ol ($C_6H_{14}O_2$)

Cox, Nelson and Cretcher, 1927

%	sat.t. lower	sat.t. upper	%	sat.t. lower	sat.t. upper
12.1	76.0	126.0	40.5	43.4	161.5
14.9	57.2	143.5	50.3	44.7	159.5
20.0	47.2	156.0	60.0	48.7	151.5
25.4	43.8	161.0	66.2	56.0	138.0
30.0	42.8	162.0	69.3	64.7	126.0

0% b.t. : 150.5-151°/730 mm d^{20} = 0.8925

Water + Ethoxyisopropanol ($C_5H_{12}O_2$)

Timmermans, 1957

%	f.t.
100	vitreous
61.8	-29
43.9	-18
24.7	-7.7
0	0

Water + Glycol ($C_2H_6O_2$)

Trimble and Potts, 1935

% L	% V	b.t.
747 mm		
0.0	0.0	99.6
27.3	0.3	103.7
59.8	2.0	110.5
61.3	2.8	112.0
73.7	6.8	120.6
81.3	10.6	125.0
83.6	12.8	127.9
87.0	17.0	133.0
88.0	20.1	136.5
90.1	24.0	140.8
94.2	38.0	151.2
97.4	61.2	168.6
97.9	66.0	171.6
98.7	81.0	182.6
99.9	99.0	196.6
100.0	100.0	196.7
603 mm		
0.0	0.0	93.7
14.0	0.1	96.0
26.6	0.2	97.0
37.7	0.2	98.6
45.9	0.7	100.3
53.4	1.2	102,2
61.5	1.5	104.7
71.3	2.9	109.6
77.1	4.8	113.1
81.2	7.6	117.5
84.4	13.2	121.4
88.0	17.0	126.0
90.8	23.1	132.1
93.6	34.0	141.9
95.9	46.8	151.4
97.7	59.6	160.2
98.0	67.7	167.1
98.9	76.2	172.7
100.0	100.0	190.0
430 mm		
0.0	0.0	85.0
12.9	0.3	85.7
16.3	0.8	86.0
25.6	1.2	86.8
33.7	1.7	88.6
43.6	2.8	90.1
52.7	3.8	91.8
63.1	6.0	96.5
71.4=	7.2	100.2
78.1	10.7	104.8
87.9	17.1	116.9
90.0	21.0	120.4
92.5	31.0	129.2
95.8	42.8	137.6
96.7	49.1	142.2
97.6	56.0	146.7
98.6	66.4	155.2
99.8	76.6	162.3
99.9	83.5	167.4
100.0	100.0	179.5
228 mm		
0.0	0.0	69.5
23.1	0.4	72.4
31.9	0.6	73.3
38.0	1.0	74.3
43.1	1.1	75.0
49.7	1.4	76.2
55.4	1.8	77.6
61.1	2.1	79.3
67.4	2.7	81.6
73.2	4.2	85.0
77.5	5.7	87.8
79.2	6.8	88.9
81.6	7.3	90.6
83.7	9.1	92.8
85.5	11.0	95.5
88.1	13.7	98.8
90.0	17.1	103.0
91.4	21.2	107.1
94.2	29.4	114.3
95.2	40.2	122.1
96.6	44.8	125.7
97.7	57.3	133.4
99.8	91.2	155.1
100.0	100.0	160.6

% L	% V	p
25°		
0	0	23.8
15	0.42	21.4
35	0.91	18.4
50	1.21	17.4
60	1.64	15.1
75	5.62	11.5
90	13.78	5.8
100	100.00	0.28

Skripach and Temkin, 1946

% L	% V	b.t.
76 mm		
37	0	47.0
51	0	49.0
68	0	53.5
73	0	56.5
76	0	58.0
84	1	66.5
91	2.5	85.0
97	9.5	97.0
99	36	115.0
100	66	128.0
100	84	136.0

Carbide and Carbon Chemicals, 1947

mol %	dew point	b.t.
	228 mm	
0	70	70
10	112.8	72.8
20	126.7	75.6
30	135.0	78.3
40	141.7	83.3
50	143.9	88.3
60	150.6	93.9
70	153.9	102.2
80	156.7	112.2
90	158.9	124.4
100	160.0	160.0

Curme and Young, 1925 (fig.)
and Harvey, 1932

%	f.t.	%	f.t.
0	0	40	-25.6
10	-2.8	50	-36.7
20	-8.3	60	-48.9
30	-15.6		

Ewert, 1937

mol%	f.t.	E	mol%	f.t.	E
10.5	-14.1	-	43.7	-58.9	-63.2
11.6	-16.0	-	44.2	-58.4	-63.3
14.1	-20.9	-	50.2	-54.6	-
18.9	-28.3	-50.8	60.9	-40.7	-
24.9	-41.8	-51.2	67.8	-45.3	-49.4
31.8	-49.6	-	75.3	-36.4	-
34.1	-49.6	-	90.1	-22.4	-
41.1	-51.2	-	100.0	-12.88	-
(2+1)	(2+3)				

Clendenning, 1949

%	f.t.	%	f.t.
0	0	60	-50
10	-3	80	-45.5
20	-8	90	-30.5
30	-14.5	100	-14
40	-24.5		
50	-36		

Ross, 1954

%	f.t.	%	f.t.
10	-3.5	80	-52.0
20	-7.8	85	-39.0
30	-13.7	90	-28.5
40	-23.2	95	-20.3
50	-36.8	100	-12.5
60	-53.5		

Schwers, 1908

t	d	t	d	t	d
10%		20%		30%	
0.00	1.01512	0.00	1.02974	0.00	1.04537
18.32	.01201	13.70	.02677	13.95	.04112
34.08	.00681	32.15	.01970	33.50	.03226
53.32	0.99798	53.40	.00921	53.12	.02149
64.88	.99220	72.75	0.99573	62.45	.01582
75.25	.98558	94.70	0.98210	73.65	.00821
93.10	.97316			94.65	0.99241
40%		50%		60%	
0.00	1.06120	0.00	1.07538	0.00	1.08851
19.05	.05265	15.70	.06784	18.90	.07807
32.50	.04545	34.05	.05683	33.55	.06884
52.78	.03366	53.65	.04417	52.97	.05550
62.20	.02720	62.20	.03827	63.00	.04825
73.15	.01976	73.65	.03304	73.80	.04004
93.90	.00355	94.20	.00364	93.50	.02400
70%		80%		85%	
0.00	1.10003	0.00	1.10982	0.00	1.11679
17.80	.08977	16.05	.10023	20.40	.10189
33.90	.07889	33.60	.08824	34.35	.09209
53.12	.06497	54.10	.07345	55.00	.07706
64.75	.05627	74.85	.05701	66.30	.06838
75.25	.04809	96.60	.03950	74.45	.06187
94.00	.03277			95.75	.04459
90%		95%		100%	
0.00	1.11966	0.00	1.12537	0	1.12570
14.20	.11030	16.20	.11350	10	.11943
34.20	.09617	20.00	.11088	20	.11287
54.48	.08128	34.10	.10053	30	.10601
63.30	.07292	54.30	.08540	40	.09883
74.05	.06187	66.20	.07619	50	.09137
96.95	.04785	73.95	.07007	60	.08363
		95.90	.05252	70	.07585
				80	.06803
				90	.06013
				100	.05223

Irany, 1944

vol%	mol%	d	vol%	mol%	d
		20°			
0.0	0.0	0.9982	48.3	22.5	1.0704
11.95	4.5	1.0197	67.7	40.4	.0916
28.0	10.4	.0424	79.7	56.9	.1034
38.2	16.2	.0562	100.0	100.0	.1182

Ross, 1954

t	d 20%	d 40%	d 60%
-10	-	1.064	1.094
-5	1.031	.062	.091
0	.030	.061	.088
+5	.029	.059	.086
10	.027	.056	.083
20	.025	.052	.077
30	.021	.047	.071

Viscosity .

Dunstan, 1904 - 1905

%	η	%	η
25°			
0.00	891	60.84	4488
14.11	1258	69.52	6227
33.11	1621	75.64	9202
45.13	2860	100.00	17330
49.55	3199		

Kellner, 1920

Viscosity (see author)

Irany, 1944

vol%	mol%	η	vol%	mol%	η
20°					
0.0	0.0	1005	48.3	22.5	3960
11.95	4.5	1460	67.7	40.4	7100
28.0	10.4	2250	79.7	56.9	10300
38.2	16.2	2980	100.0	100.0	21400

Harvey, 1932

%	n_D	%	n_D
20°			
0	1.3330	60	1.3943
10	.3437	70	.4038
20	.3540	80	.4130
30	.3642	90	.4220
40	.3745	100	.4298
50	.3845		

Skripach and Temkin, 1945

%	n_D	%	n_D
20°			
37	1.3698	84	1.4168
51	.3831	91	.4228
68	.4000	97	.4287
73	.4043	99	.4314
76	.4063	100	.4317

Åkerlöf, 1932

%	ε 20°	ε 40°	ε 60°	ε 80°	ε 100°
0	80.37	73.12	66.62	60.58	55.10
10	77.49	70.29	63.92	58.02	-
20	74.60	67.52	61.20	55.36	-
30	71.59	64.51	58.37	52.59	-
40	68.40	61.56	55.48	49.81	-
50	64.92	58.25	52.30	46.75	-
60	61.08	54.53	48.75	43.68	39.13
70	56.30	50.17	44.98	40.19	35.94
80	50.64	45.45	40.72	36.36	32.52
90	44.91	40.43	36.35	32.58	29.27
100	38.66	34.94	31.58	28.45	25.61

Schwers, 1908

%	U 20°	U 30°	%	U 20°	U 30°
0	1.000	1.000	60	0.761	0.783
10	0.991	0.988	70	.719	.731
20	.946	.951	80	.674	.682
30	.897	.909	90	.628	.637
40	.855	.870	100	.563	.591
50	.807	.827			

%	Q mix (cal/g) 17°	32°	55°	76°
10	124.14	102.61	94.88	88.74
20	169.91	154.34	140.19	135.69
30	177.59	160.68	148.42	138.50
40	184.34	159.98	144.71	133.93
50	174.12	146.88	133.16	126.88
60	151.71	126.90	115.57	112.51
70	101.01	85.30	78.37	78.45
80	83.47	70.49	64.74	64.80
90	41.70	35.23	32.37	32.42

Water + 1,2-Propyleneglycol ($C_3H_8O_2$)

Ross, 1954

%	f.t.	%	f.t.
0	0	40	-20.0
10	-2.8	50	-33.6
20	-6.5	60	-51.0
30	-11.4	68	-66.0

Mc Beth and Thompson, 1951

%	d	n_D	%	d	n_D
	35°	25°		35°	25°
0	0.99406	1.3325	59.32	1.03138	1.3973
9.94	1.00086	.3431	69.49	.03297	.4071
20.18	.00863	.3546	79.64	.03245	.4160
30.19	.01628	.3660	89.86	.02987	.4240
40.14	.02304	.3772	100.00	.02510	.4316
50.04	.02822	.3879			

Gucker and Marsh, 1948

%	t	U	%	t	U
18.9	-6.58	7.35	30.3	-13.50	2.67
18.9	-7.13	4.88	30.3	-14.43	2.23
18.9	-7.80	4.14	30.3	-16.15	1.94
20.1	-7.30	3.64	40.3	-22.66	1.65
20.1	-8.26	3.95	40.3	-24.31	1.54
20.1	-9.02	3.06	40.3	-25.45	1.29

t	U (cal/gr.) 20%	25%	30%	35%
1.7	0.96	0.94	0.93	0.92
-1.1	.95	.94	.92	.91
-3.9	.95	.93	.92	.91
-6.7	.94	.93	.92	.90
-6.9	6.0*	-	-	-
-9.4	3.0	0.92	0.91	0.90
-10.0	-	3.3*	-	-
-12.2	2.1	2.4	0.90	0.90
-12.9	-	-	2.6*	-
-15.0	1.6	1.9	2.2	0.89
-17.8	1.3	1.5	1.7	2.0*
-20.6	1.1	1.3	1.5	1.6
-23.3	1.0	1.1	1.3	1.4
-26.1	0.9	1.0	1.1	1.2
-28.9	0.8	0.9	1.0	1.1
-31.7	0.8	0.8	0.9	1.0

t	U (cal/gr.) 40%	45%	50%
1.7	0.90	0.89	0.87
-1.1	.90	.88	.87
-3.9	.89	.88	.86
-6.7	.89	.88	.86
-9.4	.88	.87	.86
-12.2	.88	.87	.86
-15.0	.88	.86	.85
-17.8	.87	.86	.85
-20.6	.87	.86	.84
-21.7	1.7*	-	-
-23.3	1.5	0.85	0.84
-26.1	1.3	0.85	0.84
-27.0	-	1.4*	-
-28.9	1.2	1.3	0.83
-31.7	1.1	1.2	1.2*

*melted

Water + 1,3-Propyleneglycol ($C_3H_8O_2$)

Ross, 1954

%	f.t.	%	f.t.
0	0	40	-16.2
10	-2.7	50	-24.2
20	-6.0	60	-36.8
30	-10.4	70	-53.0

Water + Diethyleneglycol ($C_4H_{10}O_3$)

Skripach and Temkin, 1946

% L	% V	b.t.	n_D
		76 mm	20°
33	0	46	1.3685
61	0	49	.3992
72	0	51	.4142
78	0	54	.4205
91	0	64	.4357
98	4	92	.4422
99	18	108	.4450
99-100	49	132	.4470
99-100	77	154	.4470

Water + Diethyleneglycol monoamyl ether ($C_9H_{20}O_3$)

Chakhovskoy, 1956

%	sat.t.	%	sat.t.
3.77	42.3	45.30	45.4
5.27	37.0	60.62	61.1
10.00	36.0	63.69	70.4
30.20	40.4	67.00	higher than 100

Water + Diethyleneglycol monohexyl ether ($C_{10}H_{22}O_3$)

Chakhovskoy, 1956

%	sat.t.	%	sat.t.
0.94	15	35.25	7.4
3.44	lower than 0	45.08	12.5
6.99		54.78	18.2
11.97		63.31	28.0
15.47		73.18	57.0
18.07		84.70	higher than 100
22.28			

Water + Triethyleneglycol ($C_6H_{14}O_4$)

Wise, Puck and Failey, 1950

p_2	p_1	p_2	p_1	p_2	p_1
20°		25.03°		29.05°	
0.000866	0	0.00134	0	0.00178	0
.000751	2.24	.00106	2.53	.00145	2.65
.000437	5.28	.000763	4.38	.00130	3.27
.000360	7.13	.000547	9.00	.00120	4.84
.000238	9.19	.000450	11.50	.000944	9.42
.000170	11.01	.000343	14.41	.000774	13.38
.000142	11.82	.000291	15.90	.000625	17.07
		.000235	17.80	.000304	22.12

Water + Triethyleneglycol monohexyl ether ($C_{12}H_{26}O_4$)

Chakhovskoy, 1956

%	sat.t.	%	sat.t.
4.30	39.50	50.00	50.00
7.30	39.50	59.40	56.50
10.20	39.50	73.00	79.20
27.60	41.75	80.00	higher than 100
40.00	45.35		

C.S.T. : 10% 38.6°

Water + Triethyleneglycol monooctyl ether ($C_{14}H_{30}O_4$)

Chakhovskoy, 1956

%	sat.t.	%	sat.t.
0.29	10.5	30.09	18
3.56	8.4	34.50	21
6.20	8.5	37.98	23.5
9.37	8.6	58.67	42.5
18.40	11.5	64.04	48
25.20	15.3		

C.S.T. : 4% 8°

Water + Tetraethyleneglycol monohexyl ether ($C_{14}H_{30}O_5$)

Chakhovskoy, 1956

%	sat.t.	%	sat.t.
1.31	62.0	29.98	61.0
3.49	59.5	35.73	62.0
5.48	59.5	40.86	63.5
7.67	59.8	44.02	64.5
8.97	60.0	47.70	66.5
11.48	60.0	52.17	69.5
14.98	60.0	57.55	74.0
20.42	60.5	67.32	90.0
22.68	60.5		

C.S.T. : 15% 60°

Water + Tetraethyleneglycol monooctyl ether
($C_{16}H_{34}O_5$)

Chakhovskoy, 1956

%	sat.t.	%	sat.t.
0.78	36.5	38.98	48.5
2.42	36.1	45.49	52.4
5.08	35.9	51.60	56.8
10.46	36.3	57.17	61.8
15.19	36.8	62.57	67.3
28.28	41.7	66.90	73.0
31.27	43.3	71.74	79.7
36.17	46.0		

C.S.T. : 5% 35.5°

Water + Pentaethyleneglycol monooctyl ether
($C_{18}H_{38}O_6$)

Chakhovskoy, 1956

%	sat.t.	%	sat.t.
0.50	75.0	19.80	57.0
0.75	56.0	26.80	58.4
1.00	55.5	39.21	62.0
5.00	55.0	50.00	68.0
7.50	55.0	58.40	77.0
10.00	55.5	63.60	94.0

C.S.T. : 7.5% 55.0°

Water + 2,3-Butylene glycol m ($C_4H_{10}O_4$)

Blom, Mustakas and al., 1945

t	% L	% V	t	% L	% V
750 mm			127 mm		
100.0	0.231	0.0244	58.4	0.423	0.0142
	0.530	.0535		0.700	.0244
	1.06	.112	58.5	1.34	.0430
	2.00	.226		4.58	.153
	4.28	.470		5.05	.160
	6.90	.733		14.70	.500
	8.84	.920	59.0	15.8	.460
100.5	10.8	1.09		30.1	.900
	15.2	1.45	60.4	40.6	1.60
101.0	27.6	2.68		58.7	2.92
101.8	40.7	3.40	63.0	69.0	3.16
	50.7	4.57		69.7	3.56
103.0	58.2	5.95	64.0	73.7	4.10
	69.4	7.66	71.0	85.5	8.20
105.0	70.0	7.00	74.0	91.6	15.2
106.0	73.7	8.40	81.0	93.3	19.0
109.3	87.6	11.80	92.0	93.6	40.9
113.4	90.3	16.80	106.2	96.2	63.4
117.0	92.9	22.50	118.0	98.6	79.3
134.8	95.7	45.70			
158.5	98.8	46.1			

2.04 atm.			4.42 atm.		
135.0	1.46	0.308	154.5	0.291	0.0715
	2.66	0.585		0.670	0.176
	5.05	1.10		2.67	0.692
	10.50	2.19		4.10	1.03
	12.30	2.60		6.87	1.73
	15.10	2.82		8.37	2.03
	16.90	3.26		8.58	2.21
	19.50	3.62	156.0	13.5	3.44
	21.40	4.01		13.5	3.27
136.0	24.80	4.61		16.8	3.90
	37.50	6.40		19.1	4.34
	40.20	7.20		19.3	4.57
	41.00	7.10	156.5	20.2	4.49
	50.00	8.60		25.0	5.28
138.0	61.1	10.60		27.8	5.45
139.5	66.2	11.90		29.7	5.95
149.7	68.5	12.80		33.9	7.80
151.6	73.5	14.60		40.4	8.90
155.0	76.7	16.20		44.7	9.70
			157.8	44.9	10.0
				50.3	10.4
			159.6	60.8	11.8
			160.2	64.0	12.6
			170.5	66.3	12.9
			172.2	72.0	15.0

Othmer, Shlechter and Koszalka, 1945

% L	% V	b.t.	% L	% V	b.t.
760 mm			500 mm		
3.70	31.75	172.0	2.90	33.60	155.4
6.00	42.00	167.2	4.00	42.70	153.4
10.00	57.00	158.6	9.50	63.00	144.0
15.75	70.80	149.6	14.70	75.50	136.1
26.70	87.50	132.0	31.90	93.00	111.4
48.80	96.60	110.6	56.90	98.70	95.2
62.00	98.00	106.0	79.40	99.00	91.7
71.50	98.50	104.6	88.00	99.40	89.7
81.40	99.00	102.4	92.70	99.60	89.2
350 mm			200 mm		
4.85	55.69	140.0	4.85	60.70	126.0
8.30	64.90	135.8	8.30	69.70	119.6
15.00	80.00	123.0	12.69	82.40	109.5
19.16	87.20	115.4	27.70	94.60	86.4
25.70	92.00	105.8	46.30	97.60	73.6
47.50	97.40	87.6	66.20	98.70	69.4
66.20	98.70	83.6	82.30	99.20	68.3
80.60	99.00	81.2	87.70	99.40	67.8
91.20	99.10	79.4	94.50	99.50	67.2

%	n_D	%	n_D
24°			
0	1.3330	50.00	1.3930
9.21	.3435	51.97	.3960
17.01	.3530	55.03	.3990
23.63	.3610	57.90	.4020
29.12	.3680	62.15	.4070
33.60	.3740	64.90	.4100
38.26	.3825	70.52	.4111
41.90	.3850	76.10	.4190
45.01	.3880	82.53	.4250
47.75	.3915	91.13	.4310
49.86	.3930	100.00	.4366

Water + 2,3-Butylene glycol 1 ($C_4H_{10}O_4$)

Knowlton, Schieltz and MacMillan, 1946

% (L)	% (V) 200 mm	400 mm	600 mm	800 mm
99.0	89.6	89.8	89.4	90.9
98.0	80.2	77.2	77.6	77.2
96.0	63.5	58.2	55.3	56.6
94.0	51.2	43.9	42.0	44.0
92.0	37.6	32.7	33.3	34.1
90.0	23.6	23.9	26.4	26.5
85.0	9.1	12.0	14.2	14.6
80.0	5.7	6.9	8.3	8.5
70.0	4.4	4.8	5.8	5.8
60.0	4.2	4.4	5.4	5.6
50.0	3.8	4.4	5.0	5.5
40.0	3.2	4.0	4.6	5.0
30.0	2.5	3.2	3.9	4.4
20.0	1.8	2.4	3.0	3.4
10.0	0.9	1.2	1.8	2.1
5.0	0.4	0.8	0.9	1.1

%	b.t. 200 mm	400 mm	600 mm	800 mm
0.0	66.44	82.96	93.51	101.44
2.87	66.65	83.07	93.61	101.53
10.40	66.89	83.38	93.97	101.95
21.59	67.42	83.96	94.52	102.54
39.26	68.42	84.98	95.60	103.55
60.21	70.55	87.02	97.68	105.78
80.44	75.88	92.99	104.30	112.59
90.18	87.72	104.99	116.32	124.88
96.32	106.51	125.51	137.70	147.02
100.00	140.07	159.09	171.37	180.70

%	n_D	%	n_D
	25°		
0.0	1.3324	58.3	1.4010
8.9	.3430	71.0	.4121
11.6	.3462	83.0	.4206
21.9	.3521	90.7	.4257
32.9	.3727	100.0	.4309
45.0	.3865		

Water + 2-Methyl-2,4-pentanediol ($C_6H_{14}O_2$)

Ross, 1954

%	f.t.	%	f.t.
0	0	40	-11.0
10	-1.8	50	-13.6
20	-4.0	60	-15.8
30	-7.4	70	-18.5

Water + Pinacol ($C_6H_{14}O_2$)

Pushin and Glagoleva, 1922

mol%	f.t.	E	min.	mol%	f.t.	E	min.
0	0	-	-	31.1	43.3	40.2	-
0.5	16.7	-0.45	-	34.3	41.8	40.3	-
0.79	22.4	-	-	36.5	-	40.4	-
0.86	22.0	-	-	37.8	40.7	40.2	2.0
1.3	28.0	-	-	39.6	40	40.0	1.9
2.0	33.8	-	-	40.0	-	40.4	-
2.2	34.7	-0.5	3.0	42.0	-	39.5	1.4
2.7	37.4	-	-	45.0	41.2	-	-
3.6	46.2	-0.5	-	50.0	41.25	-	-
5.1	42.6	-0.6	-	53.3	41.2	-	-
5.5	43.2	-0.4	-	57.5	41.0	27.2	0.2
6.5	43.7	-0.6	-	63.7	39.4	28.2	-
8.0	44.4	-0.7	-	64.8	39.5	27.9	-
9.6	44.9	-0.7	0.9	70.8	36.6	29.2	1.4
11.6	45.2	-1.0	-	75.0	-	29.3	1.6
12.7	45.3	-1.5	0.4	76.4	33.7	29.3	1.7
14.27	45.4	-	-	80.4	-	29.4	2.1
14.34	45.4	-	-	82.8	30.2	-	-
17.0	45.3	-	-	86.2	32.4	29.1	-
19.5	45.2	37.3	0.2	87.0	33.2	29.35	-
21.9	45.1	37.8	0.6	93.4	38.6	-	-
24.6	44.8	40.1	1.0	97.0	39.7	-	-
29.1	43.7	40.2	1.2	100	41.1	-	-
		(1+1)	(1+6)				

Water + Glycerol (C_3H_8O)

Heterogeneous equilibria

Iyer and Usher, 1925

% at b.t. L	V	% L	V
75	0.2	92	0.65
80	.3	93	.70
85	.4	94	.75
86	.45	95	.85
87	.45	96	.95
88	.50	97	1.20
89	.55	98	1.70
90	.55	99	17.00
91	.60	100	100.00

Gerlach, 1884

%	p	%	p
	100°		
100	64	79	408
99	87	78	419
98	107	77	430
97	126	76	440
96	144	75	450
95	162	74	460
94	180	73	470
93	198	72	480
92	215	71	489
91	231	70	496
90	247	65	553
89	263	60	565
88	279	55	593
87	295	50	618
86	311	45	639
85	326	40	657
84	340	35	675
83	355	30	690
82	370	25	704
81	384	20	717
80	396	10	740
		0	760

Dieterici, 1898

M	p	M	p
	0°		
0	4.579	9.581	3.787
2.309	.432	20.160	3.113
5.581	.125	39.510	2.305

Drucker and Moles, 1910

%	p	%	p
	25°		
0	23.8	60	14.8
15.5	23.0	75	10.5
25	22.0	83	8.0
35	20.2	92	4.0
50	17.4	98	0.4

Perman and Price, 1912

c	mol%	p
	70°	
0	0	233.79
11.74	2.52	229.3-232.5
12.04	2.59	229.1-229.6
22.21	5.12	222.4-222.3
48.96	13.80	200.4-199.4
68.85	23.55	173.1-173.8
90.18	40.10	128.1-128.2
105.71	58.99	80.3- 79.3

Stedman, 1924 and 1928

t	wt% (V)	mol% (V)	p_2
	760 mm		
110	0.072	0.0141	0.1071
120	.236	.0463	.3517
130	.560	.1101	.8366
140	1.130	.2232	.6960
150	2.135	.4251	3.2310
160	3.865	.7806	5.9330
180	10.630	2.2750	17.2900
200	22.980	5.5170	41.9300
	660 mm		
100	0.023	0.0045	0.0297
110	.107	.0210	.1383
120	.310	.0608	.4014
130	.693	.1364	.9001
140	1.380	.2731	1.8020
150	2.620	.5237	3.4560
160	4.710	.9580	6.3230
170	7.810	1.6310	10.7600
180	12.140	2.6350	17.3900
190	18.000	4.1190	27.1800
200	25.910	6.4050	42.2700
	560 mm		
100	0.047	0.0092	0.0515
110	.165	.0323	.1811
120	.412	.0809	.4530
130	.863	.1701	.9523
140	1.695	.3363	1.8830
150	3.190	.6407	3.5880
160	5.635	1.1551	6.4680
170	9.160	1.9350	10.8400
180	14.130	3.1260	17.5800
190	20.840	4.8990	27.4400
200	29.530	7.5790	42.4400

460 mm

90	0.012	0.0023	0.0108
100	.095	.0186	.0856
110	.245	.0480	.2210
120	.552	.1085	.4991
130	1.122	.2216	1.0192
140	2.140	.4261	1.9600
150	4.020	.8130	3.7400
160	6.860	1.4208	6.5360
170	11.100	2.3870	10.9800
180	17.000	3.8540	17.7300
190	24.680	6.0260	27.7200
200	34.390	9.3030	42.7900

360 mm

90	0.037	0.0072	0.0261
100	.167	.0327	.1178
110	.352	.0691	.2488
120	.759	.1494	.5380
130	1.530	.3031	1.0914
140	2.890	.5790	2.0840
150	5.230	1.0684	3.8460
160	8.790	1.8510	6.6640
170	14.120	3.1170	11.2200
180	21.260	5.0190	18.0700
190	30.310	7.8440	28.2400
200	41.000	12.0000	43.1900

260 mm

80	0.029	0.0057	0.0148
90	.097	.0190	.0494
100	.272	.0533	.1387
110	.545	.1071	.2785
120	1.130	.2232	.5802
130	2.180	.4342	1.1290
140	4.165	.8433	2.1930
150	7.230	1.5022	3.9080
160	12.190	2.6450	6.8760
170	18.950	4.3750	11.3760
180	27.900	7.0390	18.3000
190	38.630	10.9700	28.5100
200	50.910	16.8700	43.8700

160 mm

70	0.025	0.0049	0.0078
80	.074	.0145	.0232
90	.234	.0459	.0734
100	.543	.1067	.1708
110	.996	.1965	.3144
120	1.960	.3897	.6235
130	3.800	.7671	1.2273
140	6.750	1.3967	2.2350
150	11.670	2.5200	4.0320
160	19.000	4.3890	7.0220
170	28.410	7.2060	11.5300
190	53.360	18.3900	29.2700
200	66.400	27.8900	44.6200

60 mm

50	0.014	0.0027	0.0016
60	.033	.0065	.0039
70	.103	.0202	.0171
80	.285	.0559	.0385
90	.707	.1391	.0835
100	1.525	.3021	.1812
110	3.160	.6345	.3807
120	-	-	.6699
130	10.330	2.2047	1.3228
140	17.390	3.9560	2.3740
150	27.360	6.8650	4.1190
160	41.640	12.2520	7.3510
170	56.360	20.0900	12.0540
180	70.390	31.7500	19.0600

Fricke, 1927

mol%	p 0°	p 15°	mol%	p 0°	p 15°
84.4	0.410	1.320	36.4	2.529	7.151
72.2	0.865	2.625	32.3	2.748	7.767
60.6	1.349	3.929	26.4	3.086	8.709
52.5	1.724	4.931	22.1	3.328	9.396
46.3	2.029	5.761	82.1	3.558	10.047
41.3	2.294	6.483			

Fricke, 1929

mol%	p 0°	p 15°	mol%	p 0°	p 15°
90.8	0.275	0.793	44.4	2.152	6.082
83.2	0.564	1.600	38.9	2.455	6.889
67.9	1.144	3.365	34.4	2.707	7.588
56.5	1.580	4.512	27.5	3.081	8.621
50.0	1.907	5.405	23.1	3.313	9.261

Dornte, 1929

mol%	p_1	mol%	p_1
	70°		
59.0	79.8	5.7	222.3
40.1	128.1	2.6	229.3
23.6	173.4	2.3	230.9
13.8	199.9	0.0	233.8

Darke and Lewis, 1931

%	p	%	p
	25°		
0	23.7	60	14.8
15.5	23.0	75	10.5
25	22.0	83	8.0
35	20.2	92	4.0
50	17.4	98	0.4

Dulitskaya, 1945

mol%	p	mol%	p	mol%	p
25°		50°		75°	
0.00	27.7	0.00	92.5	0.00	289.0
3.14	20.8	3.14	85.3	3.14	274.0
14.88	18.0	14.88	74.2	14.88	237.0
20.26	15.5	19.67	70.0	20.26	222.5
28.52	13.5	29.70	59.3	29.70	190.0
51.16	8.0	41.61	46.5	41.61	151.3
100.00	0.0	48.68	39.0	51.16	122.0
		51.16	36.0	54.33	115.5
		54.33	35.5		

Gerlach, 1884

%	b.t.	%	b.t.
100	290	50	106
90	138	40	104
80	121	30	102.8
70	113.3	20	101.8
60	109	10	100.9
		0	100

%	b.t.	%	b.t.
760 mm			
100	290	79	120
99	239	78	119
98	208	77	118.2
97	188	76	117.4
96	175	75	116.7
95	164	74	116
94	156	73	115.4
93	150	72	114.8
92	145	71	114.2
91	141	70	113.6
90	138	65	111.3
89	135	60	109
88	132.5	55	107.5
87	130.5	50	106
86	129	45	105
85	127.5	40	104
84	126	35	103.4
83	124.5	30	102.8
82	123	25	102.3
81	122	20	101.8
80	121	10	100.9
		0	100

Lewis, 1922

%	b.t.	%	b.t.	%	b.t.
760 mm					
100	290.0	90	137.5	40	104.2
99	225.5	85	126.8	35	103.5
98	196.0	80	121.5	30	103.0
97	179.5	75	116.3	25	102.4
96	168.0	70	113.5	20	102.0
95	160.0	65	111.0	15	101.5
94	156.0	60	108.8	10	101.0
93	149.5	55	107.2	5	100.5
92	145.5	50	106.0		
91	141.0	45	105.5		

Mayer-Bugström, 1924

% p	b.t. 40	100	150	200	250
0	34.0	51.6	60.1	66.4	71.6
10	34.4	52.1	60.7	67.0	72.3
20	34.9	52.7	61.3	67.7	73.0
30	35.5	53.4	62.1	68.6	73.8
40	36.4	54.4	63.1	69.5	74.9
50	37.5	55.7	64.5	71.1	76.4
60	39.5	58.0	66.9	73.5	79.0
70	44.0	61.7	70.8	77.6	83.1
80	49.1	68.2	77.4	84.3	90.0
90	59.5	80.2	90.3	97.7	103.9
100	210.0	227.3	238.6	246.4	253.6

p	300	350	400	450	500
0	75.9	79.6	82.9	88.7	85.9
10	76.6	80.3	83.7	89.5	86.7
20	77.3	81.1	84.4	90.3	87.5
30	78.2	82.0	85.3	91.3	88.4
40	79.3	83.1	86.4	92.4	89.5
50	80.9	84.8	88.2	94.2	91.3
60	83.5	87.4	90.9	97.0	94.1
70	87.7	91.7	95.2	101.4	98.4
80	94.6	98.7	102.3	108.7	105.6
90	109.1	113.5	117.4	124.4	121.0
100	259.2	264.3	268.2	275.7	272.1

p	550	600	650	700	760
0	91.2	93.5	95.7	97.7	100.0
10	92.0	94.3	96.6	98.6	100.9
20	92.9	95.2	97.4	99.5	101.8
30	93.8	96.2	98.4	106.4	102.8
40	95.0	97.3	99.6	101.7	104.0
50	96.8	99.2	101.5	103.6	106.0
60	99.7	102.1	104.4	106.6	109.0
70	104.1	106.6	109.0	111.1	113.6
80	111.4	113.9	116.3	118.5	121.0
90	127.4	130.2	132.8	135.2	138.0
100	278.8	282.8	284.6	287.1	290.0

Darke and Lewis, 1931

%	b.t. 760 mm	303 mm	92.3 mm
100	290	-	-
95.14	165.0	143.0	103.0
90.0	137.5	115.0	80.0
80.0	121.5	98.5	66.2
70.0	113.5	92.0	61.2
60.0	108.8	89.4	57.8
50.0	106.0	85.8	55.2

Fabian, 1860

%	f.t.	%	f.t.
10	-0.8	40	-11.2
20	-1.6	45	-16.8
30	-4.0	50	-20 and -21.6

Guthrie, 1876

%	f.t.	%	f.t.
5	-0.8	30	-8.8
10	-2.0	35	-11.5
15	-3.3	40	-13.9
20	-5.0	45	-16.7
25	-6.2		

Abegg, 1894

M	f.t.	M	f.t.
0.514	-1.02	2.32	-5.59
1.028	-2.12	2.54	-6.34
2.055	-4.75	3.81	-11.15

Jones, 1904 and Jones and Getman, 1904

M	f.t.	M	f.t.
0.2	-0.76	2.0	-12.00
0.4	-1.65	2.4	-16.50
0.8	-3.75	2.8	-21.00
1.2	-6.00	3.2	-26.50
1.6	-8.70	3.6	-36.00

Pushin and Glagoleva, 1922

mol%	f.t.	E	min.
100	-18.5	-	-
98.2	-17.3	-	-
97.2	-16.9	-	-
94.5	-15.7	-	-
83.0	- 9.5	-	-
81.2	- 9.1	-27.7	0.1
73.5	- 4.8	-	-
64.9	- 1.3	-27.7	0.2
54.0	- 4.3	-27.7	0.3
42.0	-14.7	-28.0	-
33.6	-18.5	-28.0	0.5
20.0	-	-31.0	0.7
15.0	-21.0	-28.2	0.5
10.0	- 7.5	-28.0	0.4
0.0	0	-	-

Lane, 1925

%	f.t.	%	f.t.
11.5	- 2.0	67.1	-45.5
22.6	- 6.0	67.3	-44.5
33.3	-11.0	68.0	-44.0
44.5	-18.5	70.9	-37.5
53.0	-26.0	75.4	-28.5
60.4	-35.0	79.0	-22.0
64.0	-41.5	84.8	-10.5
64.7	-42.5	90.3	- 1.0
65.6	-44.5	95.3	+ 7.5
66.0	-44.7	98.2	+13.5
66.7	-46.5	100.0	+17.0

Bureau of Standards, 1925

%	f.t.
11.7	-2.0
22.8	-6.0
33.4	-11.0
43.4	-18.0
53.0	-26.0

Ross, 1954

%	f.t.	%	f.t.
10	-2.4	50	-23.4
20	-5.2	60	-35.6
30	-9.3	66.7	-48.5
40	-15.0		

Properties of phases . Density .

Fabian, 1860

%	d	%	d	%	d
		17.5°			
10	1.023	45	1.116	80	1.203
20	1.050	50	1.126	90	1.231
30	1.074	60	1.158	94	1.240
40	1.104	70	1.178	100	1.259

van der Willigen, 1869

%	d	%	d
	20°		
0	0.99821	80.79	1.19285
49.69	1.11463	100	1.24049
68.76	1.16270		

Lenz, 1880

%	d	%	d	%	d
		12-14°			
100	1.2691	66	1.1764	33	1.0852
99	.2664	65	.1733	32	.0825
98	.2637	64	.1702	31	.0798
97	.2610	63	.1671	30	.0771
96	.2584	62	.1640	29	.0744
95	.2557	61	.1610	28	.0716
94	.2531	60	.1582	27	.0689
93	.2504	59	.1556	26	.0663
92	.2478	58	.1530	25	.0635
91	.2451	57	.1505	24	.0608
90	.2425	56	.1480	23	.0580
89	.2398	55	.1455	22	.0553
88	.2372	54	.1430	21	.0525
87	.2345	53	.1403	20	.0498
86	.2318	52	.1375	19	.0471
85	.2292	51	.1348	18	.0446
84	.2265	50	.1320	17	.0442
83	.2238	49	.1293	16	.0398
82	.2212	48	.1265	15	.0374
81	.2185	47	.1238	14	.0349
80	.2159	46	.1210	13	.0332
79	.2122	45	.1183	12	.0297
78	.2106	44	.1155	11	.0271
77	.2079	43	.1127	10	.0245
76	.2042	42	.1100	9	.0221
75	.2016	41	.1072	8	.0196
74	.1999	40	.1045	7	.0172
73	.1973	39	.1017	6	.0147
72	.1945	38	.0989	5	.0123
71	.1918	37	.0962	4	.0098
70	.1889	36	.0934	3	.0074
69	.1858	35	.0907	2	.0049
68	.1826	34	.0880	1	.0025
67	.1795				

Schöttner, 1878

%	d	%	d
	10°		
100	1.25831	74.97	1.19365
94.46	1.24391	65.68	1.16909
89.94	1.23211	47.96	1.12257
80.31	1.20729		

Emo, 1881

%	d	%	d
	0°		
0	0.99987	50	1.1317
1	1.0021	55	.1456
2	.0045	60	.1597
5	.0120	65	.1731
8	.0198	70	.1872
10	.0244	75	.2011
15	.0371	80	.2160
20	.0504	85	.2286
25	.0641	90	.2424
30	.0769	95	.2558
35	.0905	98	.2637
40	.1048	100	.2688
45	.1184		

Gerlach, 1881

t	d				
	0 %	10 %	20 %	30 %	40 %	50 %
0	0.9999	1.0266	1.0527	1.0783	1.1064	1.1346
10	.9998	.0255	.0506	.0756	.1031	.1307
20	.9983	.0235	.0480	.0721	.0990	.1260
30	.9957	.0205	.0445	.0679	.0942	.1206
40	.9923	.0168	.0406	.0631	.0889	.1150
50	.9882	.0128	.0359	.0579	.0835	.1090
60	.9834	.0076	.0306	.0528	.0777	.1031
70	.9777	.0020	.0247	.0468	.0714	.0966
80	.9717	0.9965	.0188	.0403	.0655	.0904
90	.9652	.9897	.0123	.0343	.0587	.0840
100	.9588	.9832	.0049	.0273	.0517	.0769

t	60 %	70 %	80 %	90 %	100 %
0	1.1627	1.1906	1.2180	1.2455	1.2711
10	.1583	.1849	.2110	.2400	.2655
20	.1530	.1799	.2069	.2338	.2598
30	.1474	.1736	.2007	.2274	.2536
40	.1415	.1677	.1943	.2207	.2473
50	.1356	.1622	.1886	.2146	.2422
60	.1294	.1554	.1830	.2079	.2333
70	.1230	.1492	.1740	.2015	.2291
80	.1161	.1424	.1679	.1948	.2207
90	.1102	.1360	.1626	.1888	.2146
100	.1041	.1292	.1562	.1804	.2069

Strohmer, 1884

%	d	%	d
17.5°			
100	1.260	74	1.191
99	.257	73	.189
93	.255	72	.186
97	.252	71	.183
96	.250	70	.180
95	.247	69	.177
94	.244	68	.174
93	.242	67	.171
92	.239	66	.168
91	.237	65	.165
90	.234	64	.161
89	.231	63	.158
88	.229	62	.155
87	.226	61	.152
86	.224	60	.149
85	.221	59	.147
84	.218	58	.144
83	.216	57	.142
82	.213	56	.140
81	.211	55	.138
80	.208	54	.135
79	.205	53	.133
78	.202	52	.131
77	.200	51	.128
76	.197	50	.126
75	.194		

Skalweit, 1885

%	d	%	d	%	d
15°					
0	0.9991	33	1.0822	67	1.1761
1	1.0015	34	.0848	68	.1789
2	.0039	35	.0875	69	.1817
3	.0063	36	.0902	70	.1845
4	.0087	37	.0929	71	.1872
5	.0111	38	.0956	72	.1899
6	.0135	39	.0983	73	.1923
7	.0159	40	.1010	74	.1953
8	.0183	41	.1037	75	.1979
9	.0207	42	.1064	76	.2006
10	.0231	43	.1091	77	.2033
11	.0276	44	.1118	78	.2060
12	.0281	45	.1145	79	.2087
13	.0306	46	.1172	80	.2114
14	.0311	47	.1199	81	.2141
15	.0376	48	.1226	82	.2168
16	.0381	49	.1253	83	.2195
17	.0416	50	.1280	84	.2222
18	.0431	51	.1308	85	.2258
19	.0476	52	.1336	86	.2276
20	.0481	53	.1364	87	.2303
21	.0507	54	.1392	88	.2334
22	.0533	55	.1420	89	.2357
23	.0559	56	.1448	90	.2384
24	.0585	57	.1476	91	.2410
25	.0611	58	.1504	92	.2436
26	.0657	59	.1532	93	.2462
27	.0663	60	.1560	94	.2488
28	.0689	61	.1589	95	.2514
29	.0715	62	.1618	96	.2539
30	.0741	63	.1647	97	.2564
31	.0768	64	.1676	98	.2589
32	.0795	65	.1705	99	.2614
		66	.1733	100	.2639

Traube, 1885

c	d
15°	
5	1.0103
10	.0207
20	.0403

Nicol, 1887

%	d	%	d
20°			
100	1.26124	40	1.09923
90	.23500	30	.07279
80	.20795	20	.04698
70	.18083	10	.02209
60	.15356	0	0.99823
50	.12631		

Gerlach, 1889

%	d	%	d
15°			
0	0.99913	45	1.1145
9	1.02116	90	.2389
18	1.04320	100	.2642

Heimbrodt, 1903

N	d	N	d
14.8°			
0	0.99917	0.875	1.01671
0.125	1.00161	1.000	.01938
.250	.00409	1.250	.02458
.375	.00659	1.500	.02982
.500	.00911	1.750	.03509
.625	.01163	2.000	.04038
.750	.01416		

Jones, 1904 and Jones and Getman, 1904

M	d	M	d
0°			
0	0.999868	2.0	1.081352
0.2	1.008040	2.4	.097760
0.4	.013404	2.8	.113376
0.8	.032220	3.2	.127204
1.2	.049024	3.6	.142320
1.6	.066620		

Herz and Knoch, 1905

%	d	%	d
	25°		
0	0.9971	45.36	1.1087
7.15	1.0193	54.23	.1334
13.28	.0279	69.20	.1738
25.98	.0587	83.84	.2112
31.55	.0737	100.00	.2555

Henkel and Roth, 1905

%	d 15°	d 20°	d 25°
0	0.99913	0.99823	0.99703
4.9905	1.01116	1.01005	1.00875
9.9338	.02326	.02203	.02057
14.8970	.03553	.03415	.03257
19.3306	.04704	.04542	.04381

Chéneveau, 1907

%	d
	18°
0	0.9986
16.13	1.0371
53.74	.1354
64.67	.1665
100	.2628

Strong, 1908

%	d	%	d
	15°		
0	0.9991	60	1.1392
10	1.0286	70	.1849
20	.0672	80	.2131
30	.0880	90	.2319
40	.1084	100	.2588
50	.1330		

Drucker and Moles, 1910

%	d	%	d
	25°		
0	0.9971	60	1.1536
15.5	1.0350	75	.1934
25	.0589	83	.2163
35	.0854	92	.2395
50	.1257	98	.2574

Campbell, 1915

%	d	%	d
	56°		
0	0.9852	49.73	1.1062
2.85	0.9935	57.19	.1266
10.01	1.0090	62.08	.1393
29.49	.0558	82.35	.1929
33.46	.0654	95.64	.2279
40.00	.0815	100.00	.2400

Lewis, 1922

%	d 15°	d 20°	d 25°	d 30°
5	1.0113	1.0103	1.0084	1.0065
10	.0236	.0223	.0204	.0183
15	.0361	.0344	.0325	.0305
20	.0486	.0475	.0451	.0429
25	.0612	.0595	.0574	.0555
30	.0744	.0732	.0706	.0683
35	.0896	.0865	.0837	.0815
40	.1013	.1001	.0973	.0946
45	.1146	.1136	.1110	.1083
50	.1280	.1267	.1243	.1216

%	d 35°	d 40°	d 45°	d 50°
5	1.0043	1.0019	0.9994	0.9967
10	.0160	.0135	1.0109	1.0082
15	.0285	.0259	.0234	.0205
20	.0405	.0378	.0352	.0322
25	.0531	.0503	.0476	.0446
30	.0658	.0632	.0610	.0570
35	.0789	.0760	.0732	.0700
40	.0922	.0793	.0863	.0830
45	.1059	.1029	.0998	.0963
50	.1187	.1152	.1120	.1086

Muller, 1924

t	d	t	d
99.19%		81.98%	
15	1.2622	17	1.2178
18	.2604	18	.2172
30	.2531	20	.2160
40	.2470	30	.2098
50	.2408	40	.2035
60	.2341	50	.1973
70	.2276	60	.1908
80	.2203	70	.1841
90	.2136	80	.1772
		90	.1705
61.44%		39.31%	
15	1.1600	18	1.0979
20	.1573	30	.0923
30	.1517	40	.0871
40	.1459	50	.0817
50	.1399	60	.0759
60	.1335	70	.0698
70	.1272	80	.0646
80	.1208	90	.0569
90	.1143		
20.29%		0%	
15	1.0486	20	0.9983
18	.0478	30	.9958
20	.0472	40	.9927
30	.0438	50	.9883
40	.0398	60	.9835
50	.0354	70	.9779
60	.0290	80	.9717
70	.0242	90	.9653
80	.0179		
90	.0113		

Herz and Wegner, 1925

t	d 10%	20%	30%	40%
10	1.0237	1.0491	1.0754	1.1028
15	.0227	.0481	.0741	.1009
20	.0216	.0468	.0722	.0990
30	.0187	.0431	.0682	.0944
40	.0152	.0392	.0637	.0897
50	.0109	.0347	.0589	.0843
60	.0067	.0301	.0540	.0790
70	.0012	.0245	.0487	.0733
80	0.9953	.0184	.0422	.0673
90	0.9894	.0124	.0357	.0606
	50%	60%	70.04%	79.95%
10	1.1314	1.1586	1.1864	1.2139
15	.1291	.1564	.1838	.2111
20	.1268	.1538	.1814	.2083
30	.1218	.1486	.1761	.2025
40	.1167	.1428	.1701	.1966
50	.1110	.1370	.1641	.1906
60	.1054	.1312	.1583	.1846
70	.0999	.1252	.1523	.1786
80	.0930	.1190	.1460	.1720
90	.0865	.1123	.1386	.1651

Bosart and Snoddy, 1927

%	d 15°	15.5°	20°	25°
100	1.26405	1.26380	1.26107	1.25800
97.5	.25062	.25737	.25463	.25158
95	.25118	.25093	.24824	.24513
90	.23801	.23774	.23508	.23197
80	.21150	.21117	.20850	.20545
70	.18403	.18382	.18123	.17840
60	.15639	.15616	.15379	.15105
50	.12861	.12846	.12628	.12374
40	.10135	.10127	.09930	.09708
30	.07447	.07434	.07270	.07069
20	.04830	.04826	.04688	.04525
10	.02316	.02314	.02209	.02069

Sheely, 1932

%	d	%	d
	25°		
0	0.99107	70.19	1.17913
3.85	1.00617	72.40	.18515
7.31	.01437	74.61	.19109
10.58	.02216	75.69	.19403
14.13	.03090	77.71	.19950
17.40	.03892	79.37	.20410
19.79	.04480	80.83	.20790
23.55	.05434	82.80	.21310
27.98	.06561	84.27	.21703
30.44	.07197	86.07	.22180
33.11	.07901	86.56	.22311
36.29	.08734	87.89	.22665
39.02	.09459	89.89	.23195
41.60	.10142	90.81	.23436
44.78	.10996	92.19	.23802
48.20	.11910	92.82	.23969
51.33	.12753	93.70	.24198
54.10	.13509	94.32	.24366
55.59	.13916	95.19	.24592
57.12	.14337	95.65	.24711
58.74	.14778	96.08	.24820
59.74	.15051	96.48	.24921
61.46	.15526	96.89	.25029
62.50	.15807	98.06	.25333
64.50	.16356	98.84	.25535
64.66	.16399	99.66	.25743
66.94	.17025	100.00	.25831

Langmuir, 1932

%	d	%	d
	15.56°		
100	1.26412	60	1.15631
95	.25123	50	.12862
90	.23801	40	.10132
85	.22390	30	.07462
80	.21122	20	.04836
75	.19767	10	.02327
70	.18394		

Ernst, Watkins and Ruwe, 1936

%	d	%	d
	25°		
100	1.2590	40	1.0971
90	.2320	30	.0727
80	.2054	20	.0454
70	.1785	10	.0207
60	.1512	0	0.9971
50	.1239		

Turbaba, 1890

mol%	a.10^7	b.10^9
3.85	1222	4230
1.95	545	4900
1	49	5520

v_t (0° - 50°) = 1 + at + bt²

Bridgman, 1931

P kg	Dv (cc/g) for 1000kg	P kg	Dv (cc/g) for 1000kg
	50%	30°	
1.000	0.0291	7.000	0.1279
2.000	.0521	8.000	.1385
3.000	.0715	9.000	.1479
4.000	.0886	10.000	.1569
5.000	.1033	11.000	.1651
6.000	.1159		

Danusso, 1954

mol%	v	mol%	v
	30°		
0	1512	28.69	1823
8.31	1632	55.44	1895
14.40	1722	100.00	1911

v = sound velocity (m/sec.)

Busz, 1938

%	sound velocity
14-16°	
0	1480
13.1	1540
26.2	1600

Viscosity and surface tension

Schöttner, 1878

%	η	%	η
	10°		
100	2518000	74.97	66710
94.46	743700	64.05	22210
89.94	355300	49.79	9250
80.31	102100		

Strong, 1908

%	η(water=1)	%	η(water=1)
	15°		
0	1.0000	60	7.0716
10	1.3137	70	14.2094
20	1.7197	80	48.1632
30	2.534	90	81.0256
40	3.6451	100	777.5382
50	5.4108		

Schmidt and Jones, 1909

%	η 25°	η 35°
0	891	720
25	2003	1518
50	6145	4272
75	32030	19540
100	633000	294030

Guy and Jones, 1911

%	η 25°	η 35°	η 45°	τ 25-35°	τ 35-45°
100	606700	276100	135200	0.1240	0.1010
75	31690	18840	11860	.0681	.0586
50	6109	4233	3114	.0438	.0358
25	1946	1466	1171	.0327	.0253
0	891	720	598	.0237	.0204

Davis and Jones, 1912

%	η 25°	η 35°	η 45°	τ 25-35°	τ 35-45°
100	586100	266610	134500	0.1200	0.0980
75	31550	18910	42150	.0669	.0557
50	6198	4264	2064	.0428	.0392
25	2018	1524	1190	.0329	.0280
0	891	720	597	.0238	.0205

Archbutt and Deeley, 1912

d	η	d	η
	20°		
1.0988	3790	1.2218	111130
.1828	23600	.2441	407900
.2037	49800	.2546	868620
.2134	74970		

Seelis, 1914

%	η	%	η
	25°		
0	900	50	4521
15	1354	55	5780
30	2173	75	16200
35	2538	100	90300
40	3054		

75% 27.52° 14510

Davis, 1918

t	η 25°	η 35°
0	890	-
25	2070	1260
50	6255	4536
75	33030	22070
100	585400	-

Müller, 1924

t	η	t	η	t	η
		99.19 %			
18	1393000	50	175200	80	32800
30	570800	60	124100	90	17900
40	267500	70	53300		
		81.98 %			
17	100700	40	25500	70	8610
20	72600	50	15100	80	5080
30	40300	60	12200	90	5010
		61.44 %			
20	12270	50	4190	80	2040
30	8570	60	3230	90	1690
40	5750	70	2560		
		39.31 %			
18	6889	50	1693	80	1009
30	2845	60	1373	90	886
40	2113	70	1159		
		20.29 %			
18	2028	40	1196	70	719
20	1901	50	969	80	639
30	1586	60	865	90	554
		0 %			
20	1029	50	550	80	251
30	817	60	455	90	317
40	672	70	403		

Cocks, 1929

%	η 1°	η 10°	η 15°	η 20°	η 30°	η 40°
0	-	-	-	1310	821	671
10	2420	1800	1500	1300	1000	840
20	3320	2400	2100	1800	1400	1100
30	4620	3400	2900	2500	1900	1500
40	7520	5500	4600	3900	2800	2100
50	12520	8800	7100	5900	4200	3000
60	22820	16000	12700	10300	7100	5000
70	59200	40000	30600	24200	15200	9300
80	174200	116000	84000	64000	35000	20000
85	330200	202000	144000	100000	54000	32000
90	726200	424000	289000	195000	99000	57000
92	-	680000	425000	284000	150000	73000
99.2	-	-	-	1391000	571100	268100
	50°	60°	70°	80°	90°	100°
0	551	461	401	351	321	-
10	700	580	500	430	-	-
20	880	720	610	530	-	-
30	1200	950	780	670	-	-
40	1600	1200	1000	860	-	-
50	2300	1800	1400	1200	-	-
60	3700	2800	2200	1900	-	-
70	6700	4800	3600	2900	-	-
80	13000	9700	6600	4200	-	-
85	20000	13000	8700	6400	-	-
90	34000	21000	13000	9200	7930	230
92	43000	27000	16000	11000	-	-
95	64500	42300	27300	17300	12300	8430
99.2	175100	124100	53000	33100	18100	-

Wolkowa, 1930

d	η	d	η
		15°	
1.255	757000	1.225	142000
.246	450000	.216	91320
.235	247000	.207	66230

Sheely, 1932

%	η 20°	22.5°	25°	27.5°	30°
0	1005	-	893	-	800
3.85	1109	-	981	-	877
7.31	1216	-	1073	-	956
10.58	1331	-	1172	-	1040
14.13	1478	-	1295	-	1147
17.40	1634	-	1428	-	1259
19.79	1756	-	1530	-	1351
23.55	1995	-	1731	-	1520
27.98	2323	-	2007	-	1751
30.44	2545	-	2191	-	1907
33.11	2822	-	2420	-	2098
36.29	3207	-	2741	-	2364
39.02	3593	-	3054	-	2625
41.60	4029	-	3407	-	2919
44.78	4668	-	3927	-	3347
48.20	5518	-	4611	-	3909
51.33	6516	-	5409	-	4552
54.10	7600	-	6266	-	5236
55.59	8282	7494	6804	6203	5679
57.12	9092	8209	7447	6776	6187
58.74	10070	9074	8174	7430	6770
59.74	10787	9679	8756	7918	7222
61.46	12061	10793	9731	8792	7986
62.50	-	11642	10473	9438	8548
64.50	-	-	-	10790	9750
64.50	14990	13350	11960	-	-
64.66	15130	13460	12050	10840	9800
66.94	17890	15860	14120	12680	11400
70.19	23350	20530	18210	16230	14530
72.40	28570	24980	22030	19560	17410
74.61	35110	30570	26810	23640	20970
75.69	38980	33800	29610	26060	23020
77.71	47970	41410	36080	31580	27810
79.37	57790	49520	42830	37490	32860
80.83	70280	60080	51900	-	-
82.80	85730	72750	62530	54010	46900
84.27	103170	87230	74500	64080	55290
86.07	131080	110200	93520	79810	68640
86.56	140420	117870	99860	85200	73120
87.89	172200	143400	120900	102700	87650
89.89	231600	191500	160600	135100	114500
90.81	268000	220500	183800	154400	130400
92.19	337900	276500	229200	191600	161000
92.82	375600	306800	254700	212100	177900
93.70	442300	359900	295900	245600	205900
94.32	481700	390700	321500	266300	222300
95.19	565600	457600	374900	309700	257200
95.65	618300	499500	408300	336600	279600
96.08	671600	542000	441800	363600	300600
96.48	724000	582900	474800	389900	322400
96.89	783500	629600	512300	420700	346700
98.06	986000	789800	636800	519800	427200
98.84	1158000	926000	747400	607300	496200
99.66	1385000	1102000	884000	715500	583300
100.00	1499000	1186000	945000	764000	674000

Ernst, Watkins and Ruwe, 1936

%	η	%	η
		25°	
0	893	50	5340
10	1090	60	9380
20	1540	70	18500
30	2140	80	55800
40	3180	90	155600
		100	934000

Busz, 1938

%	η (water=1)
14 - 16°	
0	1.0
13.1	1.2
26.2	1.6

Heimbrodt, 1903

N	diffusion ratio	N	diffusion ratio
		20.14°	
0.125	0.356	0.750	0.345
.250	.354	0.875	.342
.375	.352	1.250	.329
.500	.350	1.500	.315
.625	.348	1.750	.300

Zuber, 1932

Diffusion D limit (18°) = 1.26 cm/sec. $(.10^5)$

Traube, 1885

c	σ
15°	
5	72.13
10	72.12
20	71.64

Skala, 1912

t	a²	t	a²
0%		60%	
20.2	74.10	19.5	65.88
		22	65.88
20%		30	65.88
		36	65.88
20	71.98		
22	71.58	80%	
24	70.90		
30	70.29	19	64.98
37	68.99	24	65.08
45	67.63	26	65.13
		30	65.28
40%			
18.8	67.58	100%	
22	67.29		
26	67.13	17.8	64.13
30	66.83	22	64.31
42	66.33	26	64.54
		30	64.79
		35	65.27

%	$\tau \cdot 10^5$	%	$\tau \cdot 10^5$
0	-224	60	0
20	-207	80	+45
40	-76	100	+19

Drucker and Moles, 1910

%	σ	%	σ
18°			
0	72.8	50	69.5
15	72.5	85	65.2
30	71.4	98	63.5

Müller, 1924

t	a² 99%	83%	61%	39%	20%	0%
18	62.47	-	-	69.86	-	-
20	-	65.26	67.64	-	70.92	71.68
30	62.08	64.66	66.68	68.42	69.47	70.25
40	61.53	63.93	65.71	67.18	68.02	68.68
50	61.05	63.05	64.67	65.86	66.79	67.05
60	60.34	62.11	63.59	64.55	65.23	65.50
70	59.36	61.11	62.39	63.09	63.72	63.94
80	58.72	60.07	61.21	61.62	62.01	62.16
90	57.85	59.02	59.92	60.13	60.48	60.51

Ernst, Watkins and Ruwe, 1935

%	σ	%	σ
25°			
0	72.0	60	66.9
10	70.5	70	66.5
20	69.5	80	65.7
30	68.5	90	64.5
40	67.9	100	62.5
50	67.4		

Optical and electrical properties

van der Willigen, 1869

spectral lines	n_D 20° 100%	80.79%	68.76%	49.69%	0%
A	1.45718	1.42998	1.41341	1.38805	1.32903
a	.45810	.43089	.41436	.38894	.32986
B	.45885	.43168	.41510	.38964	.33048
C	.45972	.43249	.41589	.39041	.33118
D	.46196	.43471	.41803	.39242	.33302
E	.46485	.43743	.42069	.39493	.33525
b	.46546	.43797	.42121	.39544	.33569
F	.46738	.43979	.42297	.39710	.33714
G	.46998	.44224	.42532	.39934	.33905
G	.47204	.44413	.42719	.40115	.34060
H	.47289	.44496	.42797	.40190	.34123
H	.47428	.44630	.42922	.40316	.34227
H	.47597	.44780	.43080	.40457	.34358

Lenz, 1880

%	n_D	%	n_D	%	n_D
		12.5 - 12.8°			
100	1.4758	66	1.4249	32	1.3745
99	.4744	65	.4231	31	.3732
98	.4729	64	.4213	30	.3719
97	.4715	63	.4195	29	.3706
96	.4700	62	.4176	28	.3692
95	.4686	61	.4158	27	.3679
94	.4671	60	.4140	26	.3666
93	.4657	59	.4126	25	.3652
92	.4642	58	.4114	24	.3649
91	.4628	57	.4102	23	.3636
90	.4613	56	.4091	22	.3622
89	.4598	55	.4079	21	.3609
88	.4584	54	.4065	20	.3595
87	.4569	53	.4051	19	.3572
86	.4555	52	.4036	18	.3559
85	.4540	51	.4022	17	.3546
84	.4525	50	.4007	16	.3533
83	.4511	49	.3993	15	.3520
82	.4496	48	.3979	14	.3507
81	.4482	47	.3964	13	.3494
80	.4467	46	.3950	12	.3480
79	.4453	45	.3935	11	.3467
78	.4438	44	.3921	10	.3454
77	.4424	43	.3906	9	.3442
76	.4409	42	.3890	8	.3430
75	.4395	41	.3875	7	.3417
74	.4380	40	.3860	6	.3405
73	.4366	39	.3844	5	.3392
72	.4352	38	.3829	4	.3380
71	.4337	37	.3813	3	.3367
70	.4321	36	.3798	2	.3355
69	.4304	35	.3785	1	.3342
68	.4286	34	.3772		
67	.4267	33	.3758		

Damien, 1881

d	n H_α	H_β	H_γ
		15°	
0.99915	1.33157	1.33738	1.34084
1.02360	.34325	.34930	.35265
.04330	.35397	.36007	.36370
.07420	.36829	.37435	.37783
.10560	.38600	.39302	.39713
.12400	.39633	.40283	.40633
.18650	.42891	.43609	.44044
.22550	.44907	.45671	.44907

Strohmer, 1884

%	n_D	%	n_D	%	n_D
		17.5°			
100	1.4727	83	1.4478	66	1.4206
99	.4710	82	.4461	65	.4189
98	.4698	81	.4449	64	.4167
97	.4681	80	.4432	63	.4150
96	.4670	79	.4415	62	.4133
95	.4653	78	.4398	61	.4116
94	.4636	77	.4387	60	.4099
93	.4625	76	.4370	59	.4087
92	.4608	75	.4353	58	.4070
91	.4596	74	.4336	57	.4059
90	.4579	73	.4319	56	.4048
89	.4563	72	.4308	55	.4036
88	.4551	71	.4291	54	.4019
87	.4534	70	.4274	53	.4008
86	.4523	69	.4257	52	.3997
85	.4506	68	.4240	51	.3980
84	.4489	67	.4223	50	.3969

Heimbrodt, 1903

N	n_{5600} 11°	12°	13°	14°
0	1.33465	1.33459	1.33453	1.33447
0.125	1.33708	.33702	.33696	.33687
.500	-	.33936	.33930	.33924
.750	-	.34174	.34168	.34162
1.0	-	.34410	.34403	.34397
1.5	-	.34887	.34878	.34872
2	-	.35363	.35352	.35346

Henkel and Roth, 1905

%	n_D	%	n_D
	17.5°		
0	1.33320	11	1.34651
1	.33438	12	.34774
2	.33557	13	.34900
3	.33677	14	.35024
4	.33797	15	.35150
5	.33918	16	.35275
6	.34039	17	.35401
7	.34161	18	.35527
8	.34283	19	.35653
9	.34405	20	.35781
10	.34527		

Chèneveau, 1907

%	n_D	%	n_D
	18°		
0	1.3332	64.67	1.4193
16.13	.3524	100.00	.4730
53.74	.4028		

Strong, 1908

%	n_D	%	n_D
	15°		
0	1.3277	60	1.4020
10	.3390	70	.4129
20	.3538	80	.4386
30	.3650	90	.4529
40	.3787	100	.4650
50	.3891		

Stedman, 1924 and 1928

%	n_D	%	n_D	%	n_D
		25°			
100.000	1.47352	68.708	1.42522	32.210	1.37302
99.748	.47312	66.718	.42222	30.166	.37028
97.856	.47016	64.724	.41924	28.122	.36757
95.960	.46719	62.718	.41626	26.080	.36487
94.054	.46421	60.702	.41328	24.038	.36220
92.140	.46123	58.678	.41032	21.996	.35856
90.216	.45824	56.654	.40737	19.954	.35695
88.288	.45525	54.630	.40442	17.916	.35436
86.352	.45225	52.602	.40150	15.880	.35180
84.406	.44925	50.572	.39857	13.850	.34927
82.456	.44624	48.540	.39567	11.824	.34677
80.502	.44324	46.504	.39278	9.814	.34431
78.546	.44022	44.466	.38990	7.814	.34187
76.586	.43722	42.426	.38704	5.832	.33948
74.624	.43422	40.384	.38420	3.866	.33712
72.660	.43122	38.342	.38138	1.912	.33378
70.690	.42822	36.300	.37857	0.000	.33251
		34.254	.37579		

Iyer and Usher, 1925

%	n_D	%	n_D	%	n_D
		25°			
0	1.3333	35	1.3777	70	1.4281
5	.3394	40	.3846	75	.4357
10	.3455	45	.3917	80	.4435
15	.3516	50	.3985	85	.4506
20	.3577	55	.4058	90	.4576
25	.3641	60	.4131	95	.4641
30	.3709	65	.4204	100	.4730

Hoyt, 1933-34

%	n_D	%	n_D	%	n_D
		20°			
0	1.33303	54.42	1.40428	99.84	1.473461
4.95	.33888	57.80	.40981	98.80	.471552
6.47	.34041	59.54	.41230	97.38	.469325
9.87	.34459	64.38	.41882	95.26	.466380
10.46	.34539	69.31	.42702	92.10	.461610
14.69	.35060	69.84	.42748	89.97	.458340
19.73	.35700	74.41	.43400	85.13	.451245
20.77	.35832	79.73	.44217	79.62	.442647
25.04	.36412	85.13	.45124	69.31	.427030
26.86	.37021	89.76	.45760	59.54	.412297
29.89	.37045	92.10	.46161	49.75	.397411
34.39	.37626	91.98	.46579	25.04	.364134
39.60	.38360	95.26	.46638		
44.40	.38981	97.38	.46932	(second series)	
49.75	.39741	98.80	.47159		
49.91	.39796	99.84	.47367		

Ernst, Watkins and Ruwe, 1936

%	n_D	%	n_D
	25°		
0	1.3332	60	1.4145
10	.3451	70	.4281
20	.3582	80	.4435
30	.3708	90	.4472
40	.3838	100	.4729
50	.3992		

Thwing, 1894

%	ε	%	ε
	15°		
0	75.50	58	69.20
10	73.24	65	64.14
20	72.30	73	61.79
30	71.36	80	59.40
40	71.36	89	57.80
48.5	71.46	94	56.54
56	72.30		

Åkerlöf, 1932

%	ε 20°	40°	60°	80°	100°
0	80.37	73.12	66.62	60.58	55.10
10	77.55	70.41	63.98	58.31	-
20	74.72	67.70	61.56	56.01	-
30	71.77	64.87	58.97	53.65	-
40	68.76	62.03	56.24	51.17	-
50	65.63	59.55	53.36	48.52	-
60	62.03	55.48	50.17	45.39	41.08
70	57.06	51.41	46.33	41.90	38.07
80	52.27	46.92	43.32	38.30	34.70
90	46.98	42.26	38.19	34.37	31.34
100	41.14	37.30	33.82	40.63	27.88

Albright, 1937

%	ε	%	ε
	25°		
0.00	78.48	60.15	62.38
9.88	75.98	70.00	58.52
20.33	73.86	79.86	54.08
30.19	71.44	90.42	48.66
39.67	68.93	100.00	42.48
50.23	65.72		

Henkel, 1905

%	ϰ
18°	
0	0.0136
4.56	.0327
22.23	.0674

Heat constants

Emo, 1881

%	U	%	U
	15 - 50°		
0	1.000	50	0.813
1	.000	55	.787
2	.001	60	.767
5	0.994	65	.748
8	.980	70	.726
10	.973	75	.700
15	.954	80	.678
20	.935	85	.656
25	.917	90	.634
30	.894	95	.611
35	.876	98	.594
40	.852	100	.576
45	.830		

Magie, 1901

mol%	U	mol%	U
	at room temperature		
0.20	0.9954	0.99	0.9803
.25	.9948	1.13	.9771
.40	.9917	1.99	.9621
.67	.9867	2.48	.9556
.75	.9841		

Ernst, Watkins and Ruwe, 1936

%	U	%	U
	25°		
0	1.000	60	0.715
10	0.967	70	.665
20	.930	80	.610
30	.870	90	.579
40	.810	100	.555
50	.770		

Gucker and Marsh, 1948

t	U					
	25%	30%	35%	40%	45%	
1.7	0.88	0.87	0.86	0.84	0.82	
-1.1	.88	.86	.85	.83	.81	
-3.9	.87	.86	.84	.82	.80	
-6.7	.86	.85	.83	.82	.79	
-7.2	6.8	-	-	-	-	crist.
-9.4	4.1	4.8	0.82	0.80	0.78	
-12.0	-	-	3.7	-	-	
-12.2	2.7	3.2	3.6	0.80	0.78	
-15.0	2.1	2.4	2.7	0.79	0.77	
-15.2	-	-	-	2.9	-	
-17.8	1.7	1.9	2.1	2.4	0.76	
-18.8	-	-	-	-	2.4	
-20.6	1.4	1.6	1.8	2.0	2.2	
-23.1	-	-	-	-	-	
-23.3	1.2	1.4	1.6	1.7	1.9	
-26.1	1.1	1.2	1.3	1.5	1.6	
-28.3	-	-	-	-	-	
-28.9	1.0	1.1	1.2	1.3	1.4	
-31.7	0.9	1.0	1.1	1.2	1.25	
	50%	55%	60%	65%		
1.7	0.80	0.77	0.74	0.71		
-1.1	.79	.76	.73	.70		
-3.9	.78	.75	.72	.69		
-6.7	.77	.74	.71	.68		
-9.4	.76	.73	.70	.67		
-12.2	.75	.72	.69	.66		
-15.0	.74	.71	.67	.65		
-17.8	.73	.70	.66	.63		
-20.6	.72	.69	.65	.62		
-23.1	2.0	-	-	-		crist.
-23.3	2.0	0.68	0.64	0.61		
-26.1	1.7	0.67	0.63	0.60		
-28.3	-	1.7	-	-		
-28.9	1.5	1.6	0.62	0.59		
-31.7	1.3	1.4	0.61	0.58		

%	t	U	
22.7	-6.6	9.1	
22.7	-6.7	6.9	
22.7	-7.5	5.8	
36.5	-13.3	3.5	crist.
36.5	-14.3	3.1	
36.5	-16.1	2.4	
47.1	-22.8	2.4	
47.1	-25.9	1.54	

Beetz, 1879

d^{20}	heat conductivity (relative) 8° - 14°	28° - 36°
1.125	363	484
0%	413	662

Bates, 1936

%	heat conductivity . 10^5			
	10°	20°	30°	40°
0	138	141	145	149
5	133	137	140	144
10	130	133	137	140
15	125	128	131	134
20	121	124	127	129
25	117	110	122	125
30	112	115	117	120
35	109	111	114	116
40	105	107	108	110
45	102	103	105	106
50	97	99	100	101
55	94	95	96	98
60	90	91	91	92
65	86	87	88	89
70	83	84	85	85
75	80	81	81	81
80	77	78	78	78
85	74	74	74	74
90	72	72	72	72
95	70	70	70	70
100	68	68	68	68
	50°	60°	70°	80°
0	152	156	160	163
5	147	151	154	158
10	143	146	149	152
15	137	140	143	146
20	132	135	138	141
25	127	130	132	135
30	122	124	126	129
35	118	120	122	124
40	112	114	116	118
45	108	110	111	113
50	103	103	105	107
55	99	100	101	102
60	93	94	95	96
65	89	90	91	91
70	86	86	87	87
75	92	82	82	82
80	79	79	79	79
85	74	74	75	75
90	72	72	72	73
95	70	70	70	70
100	68	68	68	68

Erk and Keller, 1936

%	heat conductivity (kilocalories/meter/hour/degree)				
	10°	20°	30°	50°	70°
0	0.501	0.514	0.526	0.551	0.576
10	.466	.480	.493	.519	.546
20	.435	.448	.461	.487	.513
30	.406	.418	.430	.455	.479
40	.378	.389	.400	.423	.445
50	.352	.362	.371	.391	.410
60	.328	.335	.343	.358	.374
70	.304	.309	.315	.326	.338
80	.280	.283	.287	.294	.301
90	.235	.257	.259	.262	.265

Gerlach, 1884

%	Dt	%	Dt
10	+1.1	50	+4.7
20	2.0	60	4.9
30	3.3	70	4.4
40	+4.1	80	3.6
		90	+2.4

Katz, 1911

%	Q mix cal/g	%	Q mix cal/g
	room t°		
3.79	0.62	44.76	4.4
7.58	1.16	62.15	4.3
9.75	1.45	74.02	3.8
13.95	2.0	84.74	2.8
24.62	3.2	100.00	0.0
35.87	4.0		

Water + 1,2,6-Hexanetriol ($C_6H_{14}O_3$)

Ross, 1854

%	f.t.	%	f.t.
10	-1.6	40	-9.7
20	-3.5	50	-14.5
30	-6.1	60	-21.9

Pushin and Glagoleva, 1922

mol%	f.t.	E	min.
100	116.6	-	-
92.4	114.0	-	-
91	113.2	-4.5	1.3
80	110.2	-7.2	-
75.2	106.5	-	-
65.7	102.5	-	-
56.4	97.5	-4.3	2.4
42.4	87.8	-4.4	2.7
38.9	82.0	-	-
33.3	76.2	-4.1	3.1
29	70.5	-4.2	3.3
26.1	65.0	-4.7	-
17.5	54.6	-4.2	3.9
14.4	40.4	-	-
13.4	36.5	-4.4	-
11.1	27.4	-4.4	-
9.0	22.8	-4.6	-
7.0	14.0	-4.4	-
4.8	-1.0	-4.4	-
3.0	-	-4.1	8.0
2.5	-3.1	-4.5	-
2.0	-2.4	-4.5	-
0.9	-1.1	-4.5	-
0	0	-4.5	-

Water + i-Erythritol ($C_4H_{10}O_4$)

Parks and Manchester, 1952

Q mix does not vary with concentration.

Water + Diglycerol ($C_6H_{14}O_5$)

Lewis, 1922

%	d	%	d
	20°		
5.00	1.0099	55.00	1.1398
10.00	.0219	60.00	.1529
15.00	.0340	65.00	.1670
20.00	.0470	70.00	.1806
25.00	.0591	75.00	.1942
30.00	.0728	80.00	.2069
35.00	.0861	85.00	.2215
40.00	.0997	90.00	.2346
45.00	.1130	95.00	.2483
50.00	.1263	100.00	.2608

Water + Mannitol ($C_6H_{14}O_6$)

Frazer, Lovelace and Rogers, 1920

%	Dp	%	Dp
	0°		
1.76	0.0307	9.77	0.1863
3.47	.0614	11.19	.2162
5.12	.0922	12.61	.2478
6.71	.1227	13.97	.2791
8.26	.1536	13.97	.2792
9.76	.1860	15.28	.3096

Yokoda, 1926

t	P 60.047%	P 90.107%	P 91.846%	P 95.251%	P 98.014%	P 99.012%
100	0.819	0.766	0.773	0.777	0.780	0.755
110	1.075	0.986	0.981	0.979	0.991	0.972
120	1.469	1.220	1.251	1.209	1.224	1.209
130	2.026	1.425	1.432	1.405	1.427	1.425
135				-	1.487	-
140	2.653	1.577	1.509	1.502	1.504	1.499
150	3.543	1.933	1.800	1.457	1.439	1.434
155				-	1.268	-
160	4.524	2.428	2.248	1.347 sic	0.976 sic	0.981 sic
165				-	0.739	0.402
170	5.741	3.050	2.783	1.692	0.836	0.437
175				-	0.888	-
180	7.163	3.626	3.358	2.011	0.997	0.509
190	8.506	4.301	3.925	2.420	1.217	0.610
200	10.498	5.022	4.610	2.827	1.447	0.721
210	-	5.928	-	-	1.725	0.852
220	-	6.745	-	-	2.022	1.027
230	-	8.002	-	-	2.310	1.197
240	-	9.016	-	-	2.652	1.399
250	-	10.351	-	-	2.922	1.587

Pearce and Snow, 1927

m	p
	25°
0.0	23.752
0.4	23.586
0.6	23.499
0.8	23.415
1.0	23.328

Beckmann, 1890

%	b.t.	%	b.t.
0	100.000	8.91	100.265
2.32	100.065	12.73	100.405
4.65	100.125	16.15	100.535

Baroni, 1893

%	b.t.	%	b.t.
3.10	100.097	16.22	100.548
6.11	100.195	21.58	100.725
9.16	100.292	26.83	100.995
12.41	100.407		

Johnston, 1906

%	b.t.	%	b.t.
0.95	100.143	7.16	100.344
1.87	100.171	7.89	100.367
2.78	100.191	8.66	100.396
3.65	100.226	9.75	100.429
4.50	100.254	10.48	100.459
5.21	100.278	11.26	100.490
6.01	100.305	12.07	100.520

Findlay, 1902

%	f.t.	%	f.t.
7.06	0	26.15	40
8.60	5	31.97	50
10.41	10	31.83	50.8
12.57	15	37.50	60
15.04	20	42.69	70
17.32	24.5	47.78	80
17.62	25	52.56	90
20.25	30	57.08	100
23.04	35.8		

Jones, 1904; Jones and Getman, 1904

m	f.t.	m	f.t.
0.2	-0.400	0.6	-1.234
.3	-0.600	.7	-1.440
.4	-0.800	.8	-1.700
.5	-1.033		

Braham, 1915 1919

m	f.t.
0.2709	-0.505
0.5460	-1.019

%	f.t.	%	f.t.
9.05	-1.019	59.26	88.1
17.78	+25.00	60.10	90.1
32.89	50.70	65.40	98.0
33.29	51.50	66.10	99.3
44.01	67.40	66.67	100.8
45.62	70.50	67.32	101.8
54.93	82.90	68.35	103.6

Cohen, Inoue and Euwen, 1910

P	%
24.05°	
1	17.122
250	17.301
500	17.451
1000	17.628
1500	17.790

Berkeley and Hartley, 1890

c	osmotic P
0°	
10	13.1
11	14.6
12.5	16.7

Campetti, 1901

t	%	d sat.sol.
10.00	12.23	1.044
15.01	13.92	1.050
20.02	15.96	1.057

Speyers, 1902

t	d
sat. sol.	
0.0	1.044
15.2	.049
31.1	.069
47.7	.087
68.0	.124
85.9	.169

Jones, 1904; Jones and Getman, 1904

m	d	m	d
0°			
0.2	1.010512	0.6	1.036940
.3	.017280	.7	.041980
.4	.022988	.8	.045912
.5	.029724		

Åkerlöf, 1932

t	ε 0%	5%	10%	15%	20%
20	80.37	79.66	78.84	78.07	-
25	78.54	77.83	77.12	76.30	75.47
30	76.73	76.06	75.18	74.47	73.64
40	73.12	72.40	71.57	70.87	70.10
50	69.85	69.16	68.33	67.57	66.74
60	66.62	65.85	65.08	64.38	63.61

White, 1936

m	U	m	U
	25°		
0.0100	0.99699	0.1500	0.98684
.0200	.99627	.1998	.98352
.0300	.99555	.2997	.97661
.0500	.99415	.5002	.96359
.0699	.99277	.6997	.95218
.1000	.99050	.9995	.93585

Parks and Manchester, 1952

m	Q diss. cal/gr.	m	Q diss. cal/gr.
	25°		
0.3634	29.59	0.2531	29.53
.2960	29.57	.1313	29.65
.2817	29.56	.1212	29.62
.2726	29.53	.1140	29.70

Water + Dulcitol ($C_6H_{14}O_6$)

Parks and Manchester, 1952

Q diss. does not vary with concentration

Water + Isodulcitol ($C_6H_{14}O_6$)

Berkeley and Hartley, 1915

%	P	d
	0°	
23.73	46.53	1.08706
26.29	53.62	1.09744

Water + Methyl lactate ($C_4H_8O_3$)

Clough, 1918

%	d	(α) D	5461 Å	4078 Å
		20°		
5.36	1.005	1.3	1.4	-0.9
10.0	.012	1.3	1.4	-0.5
20.0	.026	1.8	1.8	-0.2
50.9	.063	2.1	2.5	+1.0
80.0	.086	4.1	4.4	+4.5
100.0	.093	7.46	8.39	+11.21

Water + Methyl malate ($C_6H_{10}O_5$)

Grossmann and Landau, 1910

c	$(\alpha)_{20}$ red	yellow	green	pale blue	dark blue	viol.
2.5025	-6.78	-7.42	-9.97	-10.67	-11.36	-12.62
4.8800	-7.26	-9.09	-10.45	-12.68	-14.07	-
12.5405	-7.89	-9.89	-11.88	-13.24	-13.95	-
25.0810	-7.79	-9.43	-11.04	-12.70	-13.52	-14.14
50.1620	-7.59	-8.79	-9.19	-10.39	-11.99	-

Water + Methyl tartrate ($C_6H_{10}O_6$)

Patterson, 1904

t	d	t	d	t	d
5.16915%		10.2298%		24.8854%	
19.55	1.01386	17.86	1.03003	17.65	1.0778
26.37	.01198	26.73	.02719	31.77	.0709
31.83	.01016	33.13	.02471	51.60	.0593
48.00	.00350	47.70	.01810	73.00	.0450
78.90	0.98630	77.50	.00070		
49.7715%		74.8685%		100%	
18.50	1.1633	16.9	1.2543	18.25	1.3370
32	.1536	39.8	.2333	42.40	.3122
55.5	.1349	58	.2156	60.35	.2925
77.7	.1161	77	.1967	77.30	.2745

%	d	%	d
	20°		
0	0.99825	49.7715	1.1623
5.16915	1.01374	74.8685	.2515
10.22980	.02943	100.0000	.3352
24.88540	.07660		

Yen ki Meng, 1936

t	d	t	d
	c= 3,969		
14	1.0091	58	0.9959
24	.0061	68	.9929
34	.0031	75	.9988
48	0.9989		

Patterson, 1903

t	$(\alpha)_D$	t	$(\alpha)_D$
	100%		
16.8	1.83	61.6	4.72
20	2.07	71.6	5.23
27.8	2.64	99	6.15
40.8	3.60	100	6.18
52.3	4.40		

t	18.25	42.4	60.35	77.3
d	1.3370	1.3122	1.2925	1.2745

Patterson, 1903-1904

t	$(\alpha)_D$	t	$(\alpha)_D$
	100%		
16.8	1.83	61.6	4.72
20.0	2.07	71.6	5.23
27.8	2.64	99.0	6.15
40.8	3.60	100.0	6.18
52.3	4.40		

Patterson, 1904

%	$(\alpha)_D^{mol}$	%	$(\alpha)_D^{mol}$
	20°		
5.16915	37.4	49.7715	26.15
10.22980	36.4	74.8685	16.92
24.88540	33.3	100	3.68

Patterson,1904

t	$(\alpha)_D$	t	$(\alpha)_D$	t	$(\alpha)_D$
5.16915%		10.2298%		24.8854%	
17.2	21.10	17.2	20.47	17.2	18.73
17.4	20.97	17.5	20.43	17.4	18.67
30.7	20.81	30.3	20.34	18.0	18.74
49.9	20.28	47.5	19.87	35.7	18.46
64.2	19.71	66.4	19.03	54.5	17.81
99.0	17.88	99.0	17.14	99.0	15.95
49.7715%		74.8685%			
16.7	14.71	17.4	9.42		
17.1	14.61	28.3	9.74		
17.4	14.70	44.8	10.06		
27.8	14.61	65.4	10.31		
38.3	14.59	98.5	10.50		
62.7	14.13				
99.5	13.33				

Lowry and Abram, 1915

w.l.	(α) c=25	(α) 100%	w.l.	(α) c=25	(α) 100%
		20°			
6438	+16.04	+2.65	4800	25.23	-2.47
5780	19.28	+2.05	4678	25.86	-
5461	21.17	+1.28	4358	27.33	-8.93
5086	23.44	-0.39			

Yen ki Meng, 1936

c	(α) yellow	(α) green	(α) indigo
		20°	
2.5	10.60	11.9	16.0
5.0	10.55	11.7	15.6
10.0	10.37	11.4	15.35
15.0	10.30	11.35	15.0
20.0	9.85	10.85	24.3
30.0	9.30	10.175	13.115
40.0	8.75	9.545	11.82

t	$(\alpha)_{green}$	t	$(\alpha)_{green}$
	c= 3,969		
14	11.80	58	11.30
24	11.95	68	10.90
34	11.75	75	10.65
48	11.55		

Water + Ethyl tartrate ($C_8H_{14}O_6$)

Landolt, 1877

%	d
20°	
0	0.99823
13.8864	1.02921
39.8205	.08841
69.6867	.15079
100	.19890

Patterson, 1901

t	d	t	d
1 %			
15.8	1.0017	26.2	0.9993
2.5 %			
14.6	1.0053	41.6	0.9971
26.8	1.0024	55.0	0.9912
4.999 %			
14.4	1.0113	36.1	1.0066
17.6	1.0106		
9.994 %			
13	1.0237	19.2	1.0220
14.1	1.0235	27.5	1.0192
18.5	1.0220	34.4	1.0164
24.954 %			
15.2	1.0598	23.0	1.0562
15.8	1.0595	33.3	1.0509
16.0	1.0594		
49.993 %			
15.7	1.1186	35.3	1.1046
16.8	1.1180	63.8	1.0807
22.3	1.1137	70.3	1.0752
74.99 %			
18.2	1.1691	41.2	1.1482
18.3	1.1690	58.0	1.1323
29.7	1.1588		
100 %			
16.8	1.2087	68.1	1.1566
37.2	1.1878	76.2	1.1484
46.8	1.1783	99.4	1.1248
58.3	1.1665		

Patterson, 1904

%	d	%	d
20°			
0	0.998252	10.2307	1.02200
2.01705	1.002800	25.0338	.05744
2.02798	.002820	50.2250	.11526
4.99894	.009630	75.05	.16700
4.99917	.009700	100.00	.20530
10.07560	.021650		

t	d	t	d
4.9989 %			
18.60	1.00999	47.20	0.99970
21.65	1.00920	64.40	0.99090
30.20	1.00662	83.60	0.97930
4.99917 %			
19.4	1.00985	21.6	1.00926
10.0756 %			
19	1.02193	61.4	1.00290
21.4	1.02122	80.7	0.99080
33.8	1.01663		
25.0338 %			
18.8	1.0580	49.9	1.0407
23.0	1.0550	81.6	1.0185
50.225 %			
13.5	1.1200	49.8	1.0918
27.2	1.1100	99.4	1.0479
75.05 %			
14.8	1.1718	62.2	1.1275
40	1.1487	99.4	1.0903

Holmes, 1913

%	d	%	d
15°			
0	0.99913	65.147	1.15151
11.314	1.02615	69.700	.16086
13.853	.03239	73.811	.16910
20.417	.04855	74.803	.17110
24.024	.05736	80.610	.18183
30.174	.07240	85.063	.18977
30.781	.07384	88.392	.19535
40.683	.09730	95.748	.20568
49.019	.11664	100.000	.20990
57.552	.13526		

Patterson and Montgomerie, 1909

%	Dt	Dv
50.225	+0.5	-2.03

Patterson, 1901

%	(α)$_D$	%	(α)$_D$	%	(α)$_D$
1%		2.5%		4.999%	
20	26.06	14.6	25.80	15.3	26.23
22.3	26.30	14.7	25.98	16.6	26.16
27.2	25.67	27.3	25.66	30.8	25.80
50.8	25.01	50.3	24.65		
9.994%		24.954%		49.993%	
14.3	26.17	15	23.83	14.7	17.44
18.6	26.05	20.6	23.55	15.0	17.39
20.7	25.69	26	23.31	15.1	17.41
21.3	25.95	32.5	22.71	19.9	17.34
29.4	25.57	44.9	21.88	26.8	17.17
				34.2	16.97
				46	16.76
49.993% later		74.99%		100%	
14.5	17.42	16	11.44	10.8	6.63
15.3	17.41	16.2	11.47	11.3	6.66
15.9	17.35	18	11.57	16.0	7.21
17.0	17.34	19.5	11.66	20.1	7.67
52.6	16.68	30.6	12.19	25.1	8.25
56.1	16.63	45.0	12.82	29.9	8.70
66.2	16.42	49.1	12.97	33.7	9.10
		53.4	13.13	37.6	9.56
		67.2	13.63	46.1	10.24
				67.2	11.75
				77.1	12.30
				84.4	12.73
				89.4	12.97
				100.0	13.47

Patterson, 1904

t	(α)$_D$	t	(α)$_D$	t	(α)$_D$
4.99894%		4.99917%		10.0756%	
10.7	26.57	12.6	26.70	10.3	26.28
11.1	26.58	18.3	26.65	25.8	25.74
28.7	26.35			41.4	24.94
43.6	25.56			68.9	23.11
65.0	24.15			98.0	21.34
98.3	22.09				
25.0338%		50.225%		75.05%	
12.0	24.03	16.4	17.60	17.1	11.69
23.3	23.49	31.2	17.32	29.5	12.33
54.1	21.73	50.1	17.03	50.2	13.39
98.0	19.15	98.0	16.44	68.4	13.84
				98.0	14.61

t	(α)$_D$	t	(α)$_D$	t	(α)$_D$
		100%			
10.8	6.628	29.9	8.691	67.2	11.759
11.3	6.657	33.79	9.089	77.1	12.29
16.0	7.181	37.6	9.550	84.4	12.72
20.1	7.666	46.1	10.230	89.4	12.47
25.1	8.240	55.1	10.936	100.0	12.97

%	α_D	%	α_D
20°			
4.99	1.324	50.225	8.795
10.0756	2.610	75.05	8.886
25.0338	5.919	100.00	7.666

Landolt, 1876 - 1877

%	(α)$_D$
20°	
13.8864	25.200
39.8205	20.220
69.6867	14.001
100.0000	8.309-8.306

Water + Ethylene chlorhydrine (C_2H_5OCl)

Bancelin and Rivat, 1919

%	b.t.	%	b.t.
0	100	60	98.3
10	99.0	70	98.9
20	98.4	80	101
30	98.0	90	108
40	97.9	100	130.5
50	98.0		

Az = 97.85° and 41%

%	f.t.	%	f.t.
10	-2.9	60	-14.0
20	-5.3	70	-15.8
30	-9.7	80	-20.2
40	-11.3	90	-38
50	-12.7		

Bozzath and Gallarati, 1931

b.t.	mol% L	mol% V	b.t.	mol% L	mol% V
400 mm					
82.9	0	3.4	80.6	20	13.9
82.1	1	6.1	80.8	25	14.6
81.6	2	9.8	81.0	30	15.2
81.1	4	10.9	81.3	35	16.2
80.9	5	11.5	81.8	40	17.4
80.8	6	12.4	82.5	45	18.8
80.6	9	13.2	83.4	50	20.4
80.55	13.2		84.4	55	22.4

%	b.t. 400 mm	b.t. 504 mm	b.t. 760 mm
0	82.9	89.0	100
3.71	82.2	88.0	99.2
13.90	81.0	87.5	98.4
28.31	80.6	86.6	97.9
37.14	80.5	85.6	97.8
45.13	80.8	-	97.6
50.00	80.8	86.4	97.8
75.40	81.9	87.8	99.0
83.50	84.0	89.9	100.9
89.85	87.3	93.6	105.4
97.30	98.8	105.6	118.7
99.53	107.7	114.0	126.9
100.00	110.6	117.0	128.6

b.t.	mol% L	mol% V	b.t.	mol% L	mol% V
85.5	60	24.5	93.3	80	41.8
86.9	65	27.1	96.2	85	50.8
88.7	70	30.6	99.8	90	63.7
90.9	75	35.2	104.4	95	79.6

Lecat, 1949

%	b.t.
42.5	95.8 Az
100	128.8

Bozzath and Gallarati, 1931

%	n_D	%	n_D
20°			
0	1.3330	65.57	1.4039
12.60	.3464	78.53	.4185
15.04	.3493	86.31	.4271
24.47	.3596	87.44	.4287
24.65	.3604	98.87	.4413
30.48	.3660	99.53	.4416
39.53	.3753	100.00	.4421
49.36	.3860		

Matejka and Jelinek, 1937

%	d	%	d
0.00	0.99823 20°	57.26	1.11985
0.73	0.99958	64.19	.13329
2.64	1.00396	70.41	.14503
4.86	.00878	75.48	.15464
8.38	.01616	81.93	.16677
12.46	.02561	88.28	.17819
14.90	.03117	90.60	.18281
19.42	.04164	92.11	.18556
25.64	.05473	93.61	.18801
30.69	.06657	95.00	.19083
34.42	.07363	96.71	.19400
39.28	.08457	98.37	.19695
45.48	.09697	99.12	.19853
51.06	.10790	100.00	.20021

%	n C	n D	n F	n G
20°				
0.00	1.33110	1.33294	1.33711	1.34045
0.73	.33129	.33330	.33743	.34083
2.64	.33321	.33521	.33945	.34287
4.86	.33567	.33752	.34186	.34530
8.38	.33925	.34138	.34352	.34965
12.46	.34363	.34563	.34558	.35350
14.90	.34639	.34828	.35278	.35655
19.42	.35142	.35351	.35785	.36140
25.64	.35832	.36023	.36495	.36855
30.69	.36370	.36586	.37038	.37414
39.28	.37313	.37532	.38007	.38379
45.48	.37977	.38182	.38670	.39065
51.06	.38572	.38785	.39275	.39678
57.26	.39246	.39457	.39959	.40369
64.19	.39982	.40181	.40710	.41128
70.41	.40650	.40864	.41398	.41828
75.48	.41210	.41426	.41961	.42399
81.93	.41925	.42155	.42686	.43138
88.28	.42624	.42846	.43398	.43855
90.60	.42868	.43100	.43650	.44104
92.11	.43028	.43278	.43826	.44273
93.61	.43204	.43429	.43993	.44450
95.00	.43362	.43595	.44155	.44604
96.71	.43543	.43769	.44334	.44822
98.37	.43716	.43951	.44513	.44976
99.12	.43832	.44065	.44628	.45098
100.00	.43951	.44197	.44744	.45210

Water + Ethylene iodhydrine (C_2H_5OI)

Lecat, 1949

%	b.t.
77	98.7 Az
100	85 (25 mm)

Water + Chloral alcoholate ($C_3H_7O_2Cl_3$)

Beckmann, 1888

%	b.t.
1.824	100.350
5.605	101.070
11.740	102.225
17.830	103.355

Water + Monoethanolamine (C_2H_7ON)

Leibush and Shorina, 1947

t	p_2 25%	50%	75%	100%
30	0.03	0.07	0.23	0.83
50	0.10	0.23	0.80	3.31
75	0.40	0.91	2.88	13.80
100	1.26	3.02	9.55	50.10

t	p_1 25 mol%	50 mol%	75 mol%
30	19.1	11.2	5.3
50	61.7	37.2	17.8
75	224.0	144.0	61.0
100	631.0	479.0	235.0

t	d 20%	40%	60%	80%	100%
10	1.008	1.025	1.032	1.033	1.027
20	.005	.020	.028	.027	.019
30	.002	.016	.020	.018	.011
40	0.998	.009	.013	.011	.003
50	.993	.003	.006	.004	0.994
60	.987	0.999	0.999	0.995	.986
70	.982	.990	.991	.988	.987
80	.976	.983	.984	.980	.970

t	η 20%	50%	75%	100%
20	1880	6170	16600	31300
50	940	2570	5370	9440
80	543	1200	2090	3480
100	389	785	1250	1950

Water + Diethanolamine ($C_4H_{11}O_2N$)

Leibush and Shorina, 1947

t	p_2 25%	50%	75%	100%
30	0.003	0.010	0.025	0.087
50	.010	.037	.100	0.360
75	.043	.160	.480	1.660
100	.150	.550	1.820	6.310

t	p_1 25 mol%	50 mol%	75 mol%
30	18.2	11.5	4.3
50	53.8	39.0	19.1
75	191.0	145.0	63.1
100	646.0	458.0	214.0

t	d 20%	40%	60%	80%	100%
10	1.019	1.054	1.080	1.097	1.106
20	.016	.047	.072	.089	.099
30	.013	.042	.067	.082	.092
40	.009	.036	.060	.075	.084
50	.004	.029	.053	.069	.077
60	.000	.025	.047	.064	.069
70	0.994	.019	.040	.057	.062
80	0.988	.013	.034	.050	.055

t	η 20%	50%	75%	100%
20	2210	12500	91200	742000
50	1080	4270	20700	111000
80	603	1780	5960	22400
100	417	1050	3280	9120

Water + Triethanolamine ($C_6H_{15}O_3N$)

Leibush and Shorina, 1947

%	p_2 30°	50°	75°	100°
25	0.003	0.010	0.039	0.130
50	0.005	0.019	0.078	0.270
75	0.014	0.050	0.200	0.690
100	0.049	0.170	0.710	2.340

%	p_1 30°	50°	75°	100°
25	21.9	64.6	204.0	661.0
50	13.2	40.7	141.0	436.0
75	6.4	20.5	74.2	235.0

%	d 10°	20°	30°	40°
20	1.033	1.029	1.024	1.020
40	1.068	1.060	1.055	1.050
60	1.100	1.092	1.086	1.080
80	1.120	1.114	1.107	1.101
100	1.131	1.124	1.118	1.112

%	d 50°	60°	70°	80°
20	1.016	1.011	1.004	0.999
40	1.044	1.038	1.032	1.026
60	1.073	1.066	1.059	1.053
80	1.094	1.087	1.080	1.071
100	1.106	1.099	1.093	1.087

%	η 20°	50°	80°	100°
20	2000	988	562	407
50	8510	3240	1450	923
75	64600	14800	4370	2150
100	795000	123000	25300	10500

Water + Glycolamide ($C_2H_5O_2N$)

Stokes, 1954

Isopiestic solutions

m_1	m_2	m_1	m_2
0.1862	0.1000	2.160	1.137
.2032	.1092	2.968	.528
.2440	.1319	3.611	.841
.2793	.1512	3.620	.838
.3372	.1825	3.874	.950
.4658	.2528	4.611	2.283
.5411	.2933	5.142	.514
.8184	.4429	5.315	.588
.9566	.5173	5.478	.652
1.452	.7776		
1.880	.9959		

$_1$ = glycolamide $_2$ = potassium chloride

Gucker, Ford and Moser, 1939-41

M	m	d	M	m	d
		25°			
0.00000	0.00000	0.997074	0.51506	0.53198	1.006860
.04992	.05021	.998038	0.75470	0.79050	.011350
.04993	.05022	.998025	1.00049	1.06335	.015982
.09985	.10071	.998966	1.19850	1.28900	.019700
.10038	.10125	.998988	1.59940	1.76320	.027180
.19695	.19974	1.000826	2.30190	2.65370	.040200
.19850	.20140	.000850	2.85180	3.40960	.050490
.30127	.30736	.002806	3.49520	4.36870	.062250
.30635	.31267	.002783	3.49520	4.36960	.062250
.40020	.41070	.004670	4.52820	6.11240	.080760

M	m	U 1 - 15°	1 - 25°	1 - 40°
0.0000	0.0000	1.00000	1.00000	1.00000
.1985	.2014	0.99047	0.99223	0.99297
.4002	.4107	.98099	.98444	.98588
.7547	.7905	.96512	.97109	.97332
1.1985	1.2890	.94619	.95467	.95808
1.5994	1.7632	.92999	.94048	.94475
2.3019	2.6537	.90342	.91666	.92229
3.4952	4.3697	-	0.87900	-
3.4952	4.3696	0.86303	.87899	0.88612
4.5282	6.1124	-	.84891	0.85720

Jacobson, 1951

M	sound velocity m/sec.	d	π
		20°	
0.000		0.9982	45.34
1.401	1525.3	1.0254	41.92
1.623	1532.6	1.0297	41.35

Water + Lactamide ($C_3H_7NO_2$)

Jacobson, 1951

M	sound velocity m/sec.	d	π
	20°		
0.000		0.9982	45.35
1.370	1540.6	1.0198	41.32
1.687	1552.2	1.0246	40.51

Water + Trichlorolactamide ($C_3H_4O_2NCl_3$)

Meldrum and Turner, 1908

c	b.t.
14.6	100.355
13.2	100.325
11.5	100.285
10.5	100.270

Water + Malic amide 1 ($C_4H_8O_3N_2$)

Timmermans and Vesselovsky, 1932

%	f.t.	%	f.t.
4.8	-0.75	16.7	-2.45
9.1	-1.35	23.1	-3.55
13.0	-2.00	28.6	-4.20

E: -2.30°

Water + Morpholine (C_4H_9ON)

Friedman, Barnard and al., 1940

%	d	η	σ	n_D
		20°		
8.558	1.0057	1327	67.80	1.3447
9.740	.0069	-	65.45	.3460
10.690	-	-	-	.3472
19.394	1.0137	1963	62.62	.3598
19.966	-	-	60.80	.3608
29.659	-	-	-	.3750
30.405	1.0236	3082	59.15	.3763
37.004	.0305	4064	58.00	.3863
50.449	.0383	7227	52.85	.4066
59.927	.0432	10223	49.65	.4201
65.479	-	11613	-	-
67.646	-	11865	-	-
69.925	1.0425	12168	47.05	.4322
72.040	-	12128	-	-
72.633	-	12093	-	-
80.136	1.0357	10433	43.62	.4428
91.000	-	5954	41.60	.4502
100.000	-	2282	38.72	-

Trimble and Buse, 1941

%	d 25°	d 30°	d 35°
14.17	1.0066	1.0047	1.0026
21.97	.0128	.0105	.0083
26.72	.0165	.0140	.0166
35.55	.0238	.0210	.0180
47.36	.0325	.0290	.0255
53.07	.0355	.0317	.0280
57.05	.0369	.0330	.0291
72.67	.0352	.0308	.0264
84.05	.0249	.0204	.0158
89.65	.0164	.0119	.0073
100.00	0.9947	.9897	0.9850

Wheeler Jr., and Houle, 1954

%	n_D	%	n_D
	25°		
0.0	1.3327	70.3	1.4313
7.5	.3428	74.8	.4368
19.8	.3600	79.1	.4407
28.9	.3734	82.9	.4448
39.9	.3899	87.1	.4471
50.5	.4044	91.0	.4490
61.7	.4208	95.5	.4514
65.3	.4253	100.0	.4528

Trimble, Engle and al., 1942

%	U 0°	25°	50°	75°	100°	130°
100	0.475	0.477	0.486	0.498	0.514	0.538
90	.522	.539	.570	.600	.619	.649
80	.576	.597	.633	.670	.711	.760
70	.629	.651	.690	.729	.791	.871
60	.681	.703	.740	.780	.850	.948
50	.733	.757	.787	.826	.892	.982
40	.787	.807	.831	.871	.929	1.002
30	.840	.858	.877	.910	.954	.011
20	.892	.905	.919	.942	.972	.013
10	.946	.952	.960	.971	.991	.016
0	1.008	.999	.999	1.002	1.007	.018

Water + Ammonium lactate ($C_3H_9NO_3$)

Costello and Filachione, 1953

%	d 20°	25°	40°
0.0	-	0.9971	-
5.0	1.0132	1.0155	1.0066
15.0	.0412	.0385	.0346
28.8	.0810	.0788	.0730
46.4	.1288	.1249	.1198
70.0	.1826	.1808	.1729
78.8	.2006	.1984	.1904

%	n_D 20°	25°	40°
0.0	1.3330	1.3321	-
5.0	.3407	.3400	1.3383
15.0	.3576	.3557	.3540
28.8	.3786	.3775	.3756
46.4	.4064	.4050	.4037
70.0	.4416	.4406	.4379
78.8	.4543	.4536	.4503

%	η 20°	25°	40°
0.0	1010	0800	-
5.0	1180	1040	0860
15.0	1530	1350	0970
28.8	2550	2170	1500
46.4	6280	5220	3350
70.0	43050	32870	16350
78.8	160640	115000	46310

Water + Strychnin tartrate ($C_{46}H_{50}N_4O_6$)

Dutilh, 1912

f.t.	% (d)	% (r)
7.35	41.42	41.21
16	46.98	48.88
25	53.38	55.26
40	63.76	65.77

f.t.	% (l)	f.t.	% (l)
7.35	32.15	28	44.50
16	36.51	29	45.14
25	42.10	30	45.98
26	42.92	40	53.38
27	43.82		

Water + Brucin acid tartrate ($C_{27}H_{32}N_2O_8$)

Dutihl, 1912

f.t.	% (d)	% (l)	% (r)
20	-	-	41.08
25	50.18	47.92	46.69
35	38.87	61.82	60.32
44	44.29	69.88	73.68
50	48.11	76.63	79.08

Water + Cyclopentanol ($C_5H_{10}O$)

Lecat, 1949

%	b.t.
42	96.25 Az
100	140.85

Water + Cyclohexanol ($C_6H_{12}O$)

Lecat, 1949

%	b.t.
23	97.9 Az
100	160.8

Silberman, 1951

sat.t.	% L1	% L2	sat.t.	% L1	% L2
0	5.35	89.97	100	3.93	82.96
10	4.57	89.46	110	4.28	81.9
20	4.00	88.93	120	4.7	80.7
30	3.60	88.37	130	5.3	79.3
40	3.33	87.77	140	6.1	76.4
50	3.14	87.11	150	7.2	74.7
60	3.10	86.42	160	8.8	70.5
70	3.19	85.64	170	11.5	63.8
80	3.41	84.83	180	17.8	52.9
90	3.65	83.93	184	33.9	33.9
					C.S.T.

Sidgwick and Sutton, 1930

%	sat.t.	%	sat.t.
3.18	40.45 and 70.45	8.14	121.95
3.19	45.80 " 66.30	9.22	156.90
3.26	40.40	15.0	174.30
3.37	31.85 and 82.40	19.2	179.40
3.41	33.60	32.4	184.72
3.52	27.55	52.3	183.66
3.57	28.7	59.4	180.10
3.75	24.6	68.0	169.70
3.82	20.8	68.5	168.64
3.95	20.6	70.1	163.03
4.09	16.3	74.6	150.35
4.23	14.2	80.2	130.90
4.29	15.2	85.3	93.63
4.41	11.2	85.95	72.75
4.55	12.0	86.75	71.50
4.58	9.7	87.9	51.55
4.78	9.4		
5.00	7.2		

de Forcrand, 1912

%	f.t.	%	f.t.
88.73	-12.05	95.17	-55.70
90.36	14.58	95.91	46.80
90.98	18.50	96.87	34.10
91.96	33	98.82	-1.40
93.15	43.2	99.77	+17.48
95.03	-57.4 E	100.00	+22.45

Sidgwick and Sutton, 1930

%	f.t.	%	f.t.	%	f.t.
1.67	-0.3	88.3	-1.2	90.45	-4.9
3.33	-0.6	88.45	-1.1	91.20	-7.6
5.00	-0.9	89.0	-2.0	92.30	-10.2
		90.08	-4.1	93.00	-15.4

Timmermans, 1949

95.3% (76 mol%) f.t. = -30

E -53

Water + Cyclic alcohols.

Lecat, 1949

Name	Formula	b.t.	Az %	Az b.t.
Methylcyclohexanol	($C_7H_{14}O$)	168.5	18	98.4
Linalool	($C_{10}H_{18}O$)	198.6	-	99.7
Benzyl alcohol	(C_7H_8O)	205.25	9	99.85

Water + Terpinol ($C_{10}H_{20}O_2$)

Clavera, 1922

% (1+1)	f.t.	m.t.	% (1+1)	f.t.	m.t.
0	104.7	104.7	60	117.8	107.1
10	117.6	104.3	70	118.1	110.7
20	118.1	104.5	80	117.9	113.8
40	117.9	104.8	90	118.3	116.8
50	118.2	106.6	100	118.2	118.2

Water + Benzyl alcohol (C_7H_8O)

Hückel, Niesel and Büchs, 1944

t	% L1	% L2	t	% L1	% L2
20	3.92	95.14	40	4.14	92.79
25	3.98	94.73	45	4.196	92.45
30	4.07	93.91	50	4.194	92.08
35	4.105	93.42	55	4.365	91.38

t	mol%	σ	t	mol%	σ
20	76.5	40.08	45	-	37.51
30	71.8	37.94	50	63.0	36.895
35	70.2	37.72	60	-	34.49
40	68.3	37.65			

Water + β -Phenylethyl alcohol ($C_8H_{10}O$)

Hückel, Niesel and Büchs, 1944

t	% L1	% L2	t	% L1	% L2
25	1.78	92.80	45	1.920	90.78
30	.81	92.33	50	.945	90.44
35	.85	91.86	55	.990	89.72
40	.89	91.37			

Water + m-5 Xylenol ($C_8H_{10}O$)

Megson, 1938

%	sat.t. L1	%	sat.t. L2
88.00	84.4	0.62	22.8
88.50	77.0	0.82	37.8
89.20	66.8	1.00	52.0
89.55	62.0	1.17	64.8
89.89	56.0	.41	78.8
90.00	51.4	.60	89.7
90.50	43.4	.80	94.7
91.00	43.6	2.01	98.0
91.42	44.1		
91.97	45.0		
92.90	46.0		
93.75	47.4		
94.95	49.7		
96.01	51.8		
96.95	54.0		
97.81	56.4		
99.06	59.9		
100.00	63.5		

Water + Tetrahydrofurfuryl alcohol ($C_5H_{10}O_2$)

Clendenning, 1948 (fig.)

%	f.t.	%	f.t.
0	0	40	-13.5
10	-1.5	50	-20
20	-4	60	-30
30	-9	70	-43

%	d 20°	d 37.8°	%	d 20°	d 37.8°
0	1.0	1.0	70	1.058	1.048
20	1.021	1.018	80	1.060	1.0505
40	1.042	1.032	90	1.0595	1.050
60	1.054	1.044	100	1.057	1,047

%	Dv(%) 20°	Dv(%) 37.8°	%	Dv(%) 20°	Dv(%) 37.8°
40	2.01	1.97	80	1.475	1.41
60	2.13	1.91	90	0.870	0.86

%	η*	%	η*
	20°		
0	1000	80	7400
20	1950	90	7400
40	3400	100	5950
60	5500		

* kinematic viscosity, in centistokes. 10^3

%	n_D	%	n_D
	25°		
40	1.3834	90	1.4411
60	1.4080	100	1.4507
80	1.4309		

T. WATER + SUGARS, PHENOLS AND ORGANIC ACIDS

LXIII. WATER + SUGARS

Water + Glucose ($C_6H_{12}O_6$)

Heterogeneous equilibria

Taylor and Rowlinson, 1955

mol%	p	mol%	p
25.0°			
0	23.756	9.50	21.117
1.18	23.476	10.91	20.668
5.08	22.563	13.04	19.943
7.61	21.727	15.98	19.002
9.34	21.151	19.50	17.751
35.0°			
0	42.175	12.12	36.097
7.61	38.666	13.05	35.484
7.61	38.590	16.01	33.619
9.51	37.504	19.54	31.585
10.93	36.781		
45.0°			
0	71.88	10.95	62.74
7.63	65.86	13.08	60.59
7.63	65.80	16.03	57.80
9.53	63.95	19.59	54.11
55.0°			
0	118.04	13.10	100.12
7.63	118.15	16.06	95.24
9.55	105.18	19.62	89.19
10.96	102.97		
65.0°			
0	187.54	13.13	159.45
7.63	172.06	16.11	151.57
9.53	167.69	19.69	142.34
10.98	163.98		

Torgesen, Bower and Smith, 1950

p	b.t. 0%	10%	20%	30%	40%	50%	60%
187.57	65	65.277	65.600	66.047	66.624	67.555	69.045
233.72	70	70.280	70.615	71.073	71.670	72.625	74.137
289.13	75	75.284	75.631	76.101	76.718	77.697	79.235
355.22	80	80.289	80.648	81.130	81.767	82.772	84.338
433.56	85	85.295	85.666	86.161	86.818	87.849	89.446
525.86	90	90.302	90.685	91.194	91.871	92.929	94.560
633.99	95	95.310	95.705	96.229	96.926	98.011	99.680
760.00	100	100.319	100.726	101.265	103.096	101.093	104.804
906.06	105	105.329	105.748	106.303	108.183	107.042	109.935
1074.58	110	110.340	110.771	111.343	113.273	112.102	115.070
1268.03	115	115.352	115.793	116.385	118.365	117.163	120.212
1489.14	120	120.365	120.819	121.428	123.460	122.225	125.359

Osmotic pressure

Berkeley and Hartley, 1906

c	P
0°	
9.98	13.21
19.95	29.17
31.92	53.19
44.86	87.87
54.86	121.18

Morse, Frazer and Lovelace, 1907

m	t	P	m	t	P
0.1	24.10	2.39	0.7	22.26	16.82
.1	25.10	2.42	.7	25.43	16.96
.2	24.10	4.76	.7	22.70	16.75
.2	24.93	4.77	.8	23.00	19.27
.3	22.20	7.12	.8	23.28	19.16
.3	23.48	7.17	.8	23.64	19.25
.4	26.90	9.70	.9	23.80	21.64
.4	26.60	9.65	.9	22.58	21.49
.5	21.86	12.07	.9	23.10	21.63
.5	24.17	12.00	1.0	22.20	24.12
.6	22.57	14.56	.0	22.60	24.00
.6	22.40	14.32	.0	22.10	24.03
.6	22.30	14.29			

Morse, Frazer and Rogers, 1907

m	t	P	m	t	P
0.1	0.26	2.40	0.6	0.10	14.01
.2	.13	4.65	.7	.07	16.37
.3	.22	7.01	.8	.13	18.77
.4	.17	9.30	.9	.16	21.25
.5	.21	11.65	1.0	.17	23.59

Morse and Holland, 1908

m	P	m	P
	10.0°		
0.1	2.39	0.6	14.31
.2	4.76	.7	16.70
.3	7.11	.8	19.05
.4	9.52	.9	21.39
.5	11.91	1.0	23.80

Abegg, 1894

M	f.t.	M	f.t.
0.262	-0.498	1.399	-3.250
0.525	-1.040	2.100	-5.605
0.700	-1.435	2.782	-8.710
1.049	-2.305		

Roth, 1903

%	M	f.t.	%	M	f.t.
0.839	0.0470	-0.0870	6.839	0.4076	-0.7719
1.254	.0705	-0.1313	9.866	.6077	-1.1573
1.769	.1000	-0.1863	14.190	.9178	-1.7542
2.333	.1326	-0.2475	16.560	1.1020	-2.1174
4.000	.2314	-0.4337			

Jones, 1904 and Jones and Getman, 1904

M	f.t.	M	f.t.
0.2	-0.385	0.7	-1.430
.3	-0.574	.8	-1.690
.4	-0.780	.9	-1.930
.5	-1.023		
.6	-1.220		

Morse, Frazer and Lovelace, 1907

m	f.t.	m	f.t.
0.1	-0.192	0.6	-1.147
.2	-0.386	.7	-1.337
.3	-0.576	.8	-1.528
.4	-0.762	.9	-1.720
.5	-0.952	1.0	-1.918

Jackson and Silsbel, 1922

%	f.t.	%	f.t.
31.75	-5.3 E	66.00	+28.00
35.2	+0.50 (1+1)	67.90	28.00 (0+1)
49.37	22.98	67.60	40.00
52.99	28.07	69.69	45.00
54.64	30.00	73.08	55.22
58.02	35.00	76.36	64.75
62.13	40.40	78.23	70.20
62.82	41.45	81.49	80.50
65.71	45.00	84.90	90.80
70.91	+50.00		

Properties of phases .

Tollens, 1876

%	d	%	d
	17.5°		
7.6819	1.02871	31.6139	1.13408
9.2924	.03549	40.7432	.17763
9.3712	.03597	43.9883	.19397
10.0614	.03881	48.8667	.21925
10.6279	.04091	53.0231	.24125
12.9508	.05076	86.6111	.41363
18.6211	.07482		

Hammerschmidt, 1889

%	d
20°	
18.0569	1.07129
22.7257	.09164
23.7083	.09586

Kanonnikoff, 1894

%	d
20°	
0	0.99823
5.19	1.01880
10.09	.03806
15.85	.06143
32.35	.13586

Brown, Morris and Millar, 1897

%	d
15.5°	
2.61	1.00916
5.84	.01998
6.38	.02410
10.52	.04095
15.52	.06192
17.64	.07101
22.80	.09362

Rimbach, 1902

%	d
20°	
0	0.9982
5.078	1.0181
10.041	.0380
17.606	.0696
20.139	.0804
30.022	.1251

Jones, 1904 and Jones and Getman, 1904

M	.d.	M	d
0°			
0.2	1.011240	0.7	1.045444
.3	.017648	.8	.051276
.4	.024980	.9	.058848
.5	.032768	1.0	.063308
.6	.038156		

Morse, Frazer and Lovelace, 1907

m	d	m	d
0°			
0.1	1.00687	0.6	1.03945
.2	.01376	.7	.04551
.3	.02041	.8	.05143
.4	.02691	.9	.05731
.5	.03327	1.0	.06300

Varga, 1911

%	d	%	d
18°			
0.3834	1.000078	23.1198	1.094558
0.9885	.002395	27.9010	.116090
1.9955	.000283	33.6641	.143089
3.4039	.011820	38.0338	.164442
4.5865	.016493	41.6436	.182413
11.6918	.045383	44.6516	.197998
13.7980	.054137	49.1123	.220005
17.4589	.069431		

Jackson, 1917

%	d	%	d
20°			
6.5	1.02361	23.5	1.09524
12.5	.04799	28.9	.11963
18.5	.07329		

Pulvermacher, 1920

%	d	%	d
25°			
0	0.9971	10.20	1:0370
1.00	1.0007	15.72	.0604
2.11	1.0051	20.14	.0795
4.63	1.0146	24.03	.0962

Taylor and Rowlinson, 1955

m	d		
	25.0°	45.0°	65.7°
0.2443	1.0160	1.0057	-
.5061	.0296	.0213	1.0111
.7765	.0455	.0370	.0270
.9863	.0575	.0472	.0386
1.993	.1064	.1004	.0870
3.955	.1776	.1686	.1566
6.156	.2347	.2247	.2140
8.403	.2767	.2659	.2584
10.44	.3037	.2947	.2813
12.36	.3260	.3150	.3023
14.45	.3470	.3342	.3224
16.96	.3646	.3532	.3396
18.25	.3749	.3627	.3508
21.00	.3857	.3751	.3612

Vanecek, 1956

%	d	%	d
20°			
29.376	1.12183	70.663	1.33940
39.656	.17114	76.283	.37087
50.536	.22585	83.020	.41320
61.134	.28678		

Viscosity and surface tension .

Powell, 1914

%	η 25°	30°	35°	40°	45°	50°
9.66	1183	1046	929	841	761	698
18.65	1603	1401	1235	1100	987	894
27.06	2255	1964	1712	1516	1344	1208
34.92	3368	2901	2490	2182	1918	1712
42.30	5293	4430	3770	3236	2809	2466
49.30	8917	7277	6055	5132	4325	3735

Pulvermacher, 1920

%	η(water=1)	%	η(water=1)
	25°		
0	1.000	10.20	1.316
1.00	.027	15.72	.619
2.11	.062	20.14	.901
4.63	.131	24.03	2.216

Varicak, 1921

t	η_t(water^t=1)				
M	0.1	0.25	0.5	0.75	1.0
5	1.212	1.363	1.450	1.739	1.889
10	.024	.210	.329	.526	.637
15	.048	.197	.266	.476	.611
20	.027	.186	.289	.447	.621
25	.047	.198	.324	.447	.588
30	.049	.199	.294	.464	.597
35	.013	.169	.237	.411	.528
40	.020	.167	.188	.414	.514

Ghosh and Gyani, 1953

c	η(water=1)
35°	
4.80	1.1185
9.60	.2625
14.40	.4470
25.56	2.0256
30.00	2.3050

Kanonnikoff, 1894

%	n_D
20°	
0	1.33298
5.19	.34069
10.09	.34796
15.85	.35679
32.35	.38459

Wagner, 1903

%	n_D	%	n_D
	17.5°		
0	1.33320	11.551	1.34947
0.270	.33358	11.817	.34984
0.540	.33397	12.083	.35021
0.810	.33435	12.349	.35058
1.080	.33474	12.615	.35095
1.350	.33513	12.881	.35122
1.620	.33551	13.147	.35169
1.890	.33590	13.413	.35205
2.160	.33628	13.678	.35242
2.430	.33667	13.942	.35279
2.700	.33705	14.207	.35316
2.969	.33743	14.471	.35352
3.238	.33781	14.736	.35388
3.507	.33820	15.000	.35425
3.776	.33858	15.265	.35461
4.045	.33896	15.529	.35497
4.314	.33934	15.794	.35533
4.583	.33972	16.058	.35569
4.852	.34010	16.321	.35606
5.121	.34048	16.584	.35642
5.390	.34086	16.846	.35678
5.659	.34124	17.109	.35714
5.928	.34162	17.372	.35750
6.197	.34199	17.634	.35786
6.466	.34237	17.897	.35822
6.735	.34275	18.160	.35858
7.004	.34313	18.423	.35894
7.273	.34350	18.685	.35930
7.542	.34388	18.945	.35966
7.811	.34426	19.205	.36002
8.080	.34463	19.465	.36038
8.347	.34500	19.725	.36074
8.615	.34537	19.985	.36109
8.882	.34575	20.245	.36145
9.149	.34612	20.505	.36181
9.417	.34650	20.765	.36217
9.684	.34687	21.025	.36252
9.951	.34724	21.285	.36287
10.218	.34761	21.542	.36323
10.486	.34798	21.799	.36359
10.753	.34836	22.056	.36394
11.019	.34873	22.313	.36429
11.285	.34910		

Pulvermacher, 1920

%	n_D	%	n_D
	25°		
0	1.3325	10.20	1.3486
1.00	.3351	15.72	.3575
2.11	.3366	20.14	.3646
4.63	.3401	24.03	.3710

Tollens, 1876

%	$(\alpha)_D$	%	$(\alpha)_D$
	17.5°		
7.6819	53.35	31.6139	53.64
9.2924	53.00	40.7432	54.35
9.3712	52.79	43.9883	54.67
10.0614	53.02	48.8667	54.62
10.6279	52.97	53.0231	55.16
12.9508	53.17	86.6111	57.70
18.6211	53.40		

Hammerschmidt, 1889

%	$(\alpha)_D$
20°	
18.0569	52.97
22.7257	53.07
23.7083	53.20

Jackson, 1917

%	$(\alpha)_{5461}$
20°	
6.4503	62.306
12.9005	62.581
19.3510	62.855
25.8010	63.129
32.2515	63.404

Kreinin, 1945

%	$\varkappa$	%	$\varkappa$
	19°	sound frequency	
0	0.07	30	0.10
10	.13	40	.08
15	.14	50	.05
20	.13	60	.03

%	$\varkappa$			
w.l. (in cm)	30.57	42.0	49.1	68.2
		19°		
0	28	15	10	5
20	42	25	18	10
40	68	44	35	18
60	110	80	62	32

N.B. The authors give also curves for w.l.= 143.6, 191.8, 236.3, 308.6, 375.6, 438.2 and 498.4

Fürth, 1923

%	ε	%	ε
	20°		
0.0	80.5	28.6	44.0
9.1	70.0	33.3	38.0
16.6	59.5	44.4	26.0
23.1	49.5		

Malmberg and Maryott, 1950

%	ε 20°	ε 25°	ε 30°
0	80.38	78.54	76.76
5	79.17	77.37	75.64
10	-	76.14	-
15	76.56	74.80	73.11
20	-	73.43	-
30	72.13	70.46	68.82
40	68.73	67.11	65.56
50	64.90	63.39	61.91

Heat constants

Pryor and Roscoe, 1954

%	velocity of sound (m/sec.) 20°	40°
0	1479	1527
34.9	1654	1678
49.3	1757	1767
70	1939	-

Telkessy, 1911

%	U	%	U
	at room temp.		
5.200	0.9641	30.854	0.8293
10.468	.9350	41.384	.7748
21.061	.8796	52.365	.7194

Taylor and Rowlinson, 1955

m	U	m	U
	25°		
0	1	6	0.705
2	0.85	8	0.675
4	0.76		

m initial	m final	Q dil (by mole glucose)
	25°	
5.046	4.5	-20
5.046	4	-50
5.046	3	-100
5.046	2	-170
5.046	1	-240
5.046	0.5	-280
5.046	0	-340

Water + Levulose ($C_6H_{12}O_6$)

Abegg, 1894

M	f.t.	M	f.t.
0.554	-1.115	2.13	-5.63
1.065	-2.35	2.77	-8.42
1.385	-3.21		

Jones, 1904 and Jones and Getman, 1904

M	f.t.	M	f.t.
0.2	-0.384	0.6	-1.265
.3	-0.610	.7	-1.535
.4	-0.830	.8	-1.765
.5	-1.054	.9	-2.033
		1.0	-2.300

Jackson, Silsbee and Proffitt, 1926

f.t.	%
20	78.94
40	84.34
55	88.10

Young, Jones and Lewis, 1952

%	f.t.	%	f.t.
	ice		
0.0	0.0	40.0	- 7.65
10.0	- 1.3	50.0	-12.30
20.0	- 2.7	60.0	-19.35
30.0	- 4.75	69.2	-30.40
	levulose		
73.7	- 3.85	79.4	+20.0
74.7	0.0	81.9	+30.0
77.0	+10.0	84.3	+39.4
	(1+2)		
69.05	-10.35	20.0	+79.40
72.55	0.00	27.9	+82.05
10.0	+75.95		
	(2+1)		
44.70	- 9.7 E	64.9	+10.0
49.10	- 5.0	71.1	+15.0
54.05	0.0	79.7	+20.0
59.10	+ 5.0	83.3	+21.3
	metastable		
47.55	- 7.35	65.60	+10.0
49.85	- 5.0	71.85	+15.0
54.80	- 0.0	73.60	+16.3
59.85	+ 5.0		
	gel		
62.5	-20	72	0
65	-15	74.5	+ 5
67	-10	78	+10
69	- 5		

Hönig and Jetter, 1888

%	d	%	d
17.5°			
6	1.02150	16	1.06503
7	.02575	17	.06950
8	.03012	18	.07380
9	.03447	19	.07825
10	.03870	20	.08253
11	.04303	21	.08700
12	.04747	22	.09137
13	.05175	23	.09588
14	.05620	24	.10030
15	.06053	25	.10488

Jones, 1904 and Jones and Getman, 1904

M	d	M	d
0°			
0.2	1.014076	0.6	1.043380
.3	.021260	.7	.047424
.4	.029224	.8	.056320
.5	.035644	.9	.063160
		1.0	.071796

Herzfeld, 1884

t	d	t	d	t	d
5.22%		8.51%		11.67%	
20	1.01838	12	1.03373	20	1.04544
		20	.03170	29	.03945
		29.5	.02707	41	.03416
		39.7	.02488		
		76.2	.00542		
		91	.00140		
20.94%		27.09%		41.35%	
20	1.08368	20.	1.11119	20	1.17930
30	.07899	30.5	.10604	30	.17485
41.5	.07603	41.8	.10091	38.5	.16976
		44	.10079	43	.16730
				48.5	.16411

Brown, Morris and Millar, 1897

%	d	%	d
15.5°			
0	0.99905	12.16	1.04885
2.45	1.00876	12.51	.05035
6.13	.02370	15.68	.06405
6.38	.02467	20.63	.08606
7.35	.02869		

Holty, 1905

%	d
26°	
7.60	1.0298
12.61	.0505
18.49	.0755

Winter, 1913

%	d
20°	
20.071	1.07916
20.197	1,07940

Jackson and Mathews, 1932

%	d 20°	d 25°	%	d 20°	d 25°
2.633	1.00859	1.00736	17.290	1.06965	1.06790
5.591	.02041	.01909	17.952	.07259	-
8.998	.03437	.03285	24.452	.10176	-
9.534	.03656	.03509	31.255	.13353	-
13.485	.05318	.05164	40.831	.18112	-
15.345	.06119	.05949	50.655	.23303	-
17.223	.06937	.06759	60.087	.28591	-
17.229	.06944	-	69.152	.33921	-

Tsuzuki and Yamazaki, 1952

t	d 50%	d 60%	d 70%	d 80%
10	1.2357	1.2927	-	-
15	.2328	.2896	-	-
20	.2301	.2860	1.3452	1.4068
25	.2269	.2823	.3424	.4025
30	.2242	.2792	.3378	.3990
40	.2176	.2721	.3303	.3915
50	.2106	.2647	.3227	.3832
60	.2036	.2574	.3145	.3744
70	.1962	.2498	.3062	.3661
80	.1890	.2415	.2979	.3584
90	.1824	.2343	.2906	.3502

N.B. There is a confusion in the paper, in column headings.

Powell, 1914

%	η 25°	30°	35°	40°
9.57	1307	1152	1027	913
18.48	1764	1549	1361	1195
26.94	2445	2127	1851	1624
34.79	3608	3061	2616	2257
41.15	5627	4717	3940	3345
49.04	9563	7802	6397	5306

Jackson and Mathews, 1932

%	n_D 20°	25°
0	1.33300	1.33252
4.862	.34001	.33949
4.961	.34016	-
8.416	.34528	-
8.618	.34560	1.34500
11.855	.34043	.34985
15.151	.35557	.35494
18.944	.36157	.36094
19.098	.36185	.36115
22.955	.36822	.36748
26.948	.37503	-
30.912	.38197	1.38104
31.168	.38239	.38162
31.300	.38259	-
40.906	.40035	1.39932
41.001	.40046	.39950
41.093	.40059	.39958
50.212	.41856	.41758
51.036	.42030	-
58.125	.43510	1.43398
60.488	.44013	.43894
69.166	.45964	.45845
75.246	.47383	.47261
75.838	.47524	.47399
78.664	.48188	.48046
82.321	.49062	.48945
82.390	.49093	.48967
85.930	.49954	.49823
86.826	.5019	-
88.073	.5052	1.5038
88.601	.5065	.5051
88.991	.5073	.5060
89.321	.5082	.5069

Herzfeld, 1884

t	$(\alpha)_D$	t	$(\alpha)_D$
5.22 %			
20	-67.62		
8.51 %			
12.0	-73.81	40.5	-58.98
20.0	-69.31	76.2	-43.57
29.5	-64.80	91.0	-34.94
39.7	-59.72		
11.67 %		20.94 %	
20	-70.07	20.0	-70.61
29	-65.57	30.0	-65.81
41	-59.65	41.5	-60.09
41.35 %			
20.0	-72.10	43.0	-58.36
30.0	-66.95	48.5	-55.67
38.5	-59.34	83.14 %	
		24	-76.00

Hönig and Jetter, 1888

%	t	$(\alpha)_D$	%	t	$(\alpha)_D$
4.7541	12	-94.352	20.2446	12.0	-98.775
9.0870	12.9	95.295	23.4979	9.0	101.487
-	15.4	93.526	-	14.4	97.544
-	20.2	90.418	-	20.6	93.562
-	30.4	83.468	-	33.5	84.294
-	39.9	77.157	-	44.6	76.877
17.1421	15.4	95.867	39.3379	16.6	-100.645
-	20.2	92.524			
-	35.2	-82.572			

Holty, 1905

%	$(\alpha)_D$
26°	
7.60	-87.30
12.61	-87.78
18.49	-88.51

Winter, 1913

%	$(\alpha)_D$
20°	
20.071	-71.47
20.197	-71.43

Fürth, 1923

%	ε	%	ε
	20°		
0.0	80.5	28.6	45.0
9.1	71.5	33.3	41.0
16.6	64.5	37,5	34.5
23.1	54.0		

Slevogt, 1939

Absorption and dispersion for different electric waves in 78 % solution .

Kreinin, 1945 (fig.)

%	κ	%	κ
	19° sound frequency		
0	0.07	40	0.18
10	.20	50	.12
20	.23	60	.08
30	.21		

%	κ			
w.l. (in cm)	30.57	42.0	49.1	68.2
	19°			
0	34	15	10	5
20	48	22	15	8
40	62	36	24	14
60	118	68	58	30

N.B. the authors give also curves for w.l.= 143.6, 191.8, 238.4, 308.6, 375.6, 438.4 and 498.4

Water + Galactose ($C_6H_{12}O_6$)

Berkeley and Hartley, 1906

c	osmotic P
0°	
25	35.5
38	62.8
50	95.8
50	97.3

Kanonnikoff, 1894

%	d
20°	
0	0.99823
5.14	1.01861
9.72	.03786
20.09	.08262
29.31	.12300

Pulvermacher, 1920

%	d	%	d
	25°		
0	0.9971	4.60	1.0150
1.15	1.0012	9.12	.0335
2.30	1.0058	18.24	.0730

Riiber and Minsaas, 1926

c	d	c	d
	20°		
0	0.998232	10.4466	1.039149
5.5072	1.019876	17.7614	.059759
9.8060	1.038114	21.6055	.082241

Pulvermacher, 1920

%	η (water=1)	%	η (water=1)
	25°		
0	1	4.60	1.125
1.15	1.031	9.12	1.283
2.30	1.062	18.24	1.748

Kanonnikoff, 1894

%	n_D
0	1.33298
5.14	.34067
9.72	.34760
20.09	.36421
29.31	.38008

Pulvermacher, 1920

%	n_D	%	n_D
	25°		
0	1.3325	4.60	1.3400
1.15	.3349	9.12	.3470
2.30	.3366	18.24	.3620

Riiber and Minsaas, 1926

c	n_D
20°	
0	1.33298
5.495	.34092
10.423	.34804
15.726	.35570
21.557	.36411

Water + Saccharose ($C_{12}H_{22}O_{11}$)

Heterogeneous equilibria

Equilibrium L + V

Wüllner, 1858

t	p			
	0%	33.33%	50.00%	60.00%
29.2	30.13	28.64	27.45	26.16
34.9	41.59	39.71	37.82	36.03
39.3	52.89	50.81	48.92	46.74
40.1	55.20	52.82	50.54	48.35
42.7	63.35	61.07	58.59	56.16
44.2	69.59	66.92	64.14	61.36
47.2	79.91	76.94	73.67	70.50
51.6	99.58	95.72	92.35	88.29
53.8	110.88	-	103.66	99.89
56.0	123.24	118.20	113.49	108.20
61.5	159.50	153.57	147.54	141.01
66.8	202.60	195.59	188.67	181.06
69.3	226.14	217.95	210.34	201.26
73.1	266.29	277.31	249.30	239.62
77.7	322.84	311.48	300.86	290.40
80.4	360.49	348.64	336.44	322.64
81.4	375.34	363.60	350.84	339.44
93.6	409.81	396.51	382.91	369.03
88.5	496.15	-	464.95	449.20
90.9	543.72	527.29	509.58	491.87
95.1	636.12	-	596.92	575.66
96.7	674.60	653.48	630.87	606.29
100.9	784.83	761.07	735.04	704.98

Smits, 1897

m	p	m	p
		0°	
0	4.57900	0.77912	4.51415
0.02138	.57722	0.88210	.40447
.04630	.57512	1.02602	.57681
.08488	.57195	1.17225	.56421
.17287	.56460	1.45413	.53928
.28340	.55534	1.08110	.48826

Mikhailenko, 1901

%	p	N	%	p	N
			50°		
0	92.6	0	21.06	91.3	0.7801
4.478	-	0.1370	38.84	89.0	1.8560
11.500	92.5	.3800	46.74	87.6	2.5660
14.140	91.85	.4817	52.31	85.8	3.2070

Perman, 1905

%	p 0 %	p sol.
	at $t_{p°}$	
12.28	733.3	727.8
26.63	754.8	740.3

Tower, 1908

%	t	p
0	15.0	12.790
6.19	15.5	12.743
20.42	15.0	12.618
25.49	15.0	12.556

Krauskopf, 1910

%	p	%	p
	40.0°		
0	54.38	28.57	53.34
16.67	53.76	37.50	55.34

Perman and Price, 1912

c	t	p	c	t	p
38.97	70.14	228.6	29.28	90.03	516.33
39.46	70.14	227.4	38.71	90.03	510.00
52.55	70.10	223.5	57.99	90.00	493.82
52.90	69.97	224.4	77.71	90.00	469.38
82.61	70.08	213.1	-	90.00	386.25
19.33	90.02	521.0			

Wood, 1916

t	p	t	p
0%		47.97%	
58.49	138.4	60.42	146.0
62.35	165.8	63.39	165.8
65.19	188.7	66.02	184.7
68.68	219.6	72.95	247.8
72.13	254.7	73.23	262.5
77.32	317.0	80.42	344.9
80.14	355.6	82.78	373.9
84.91	429.1	84.86	401.0
89.04	503.6	90.00	496.0
61.02%		69.20%	
62.98	151.8	59.0	112.7
67.51	186.9	62.9	136.0
73.08	237.5	68.2	173.7
78.55	298.6	73.9	222.5
83.35	363.8	75.1	235.0
87.61	429.3	78.8	276.8
90.85	485.8	84.9	359.4
92.66	527.1	89.1	416.4
		92.0	464.4

Berkeley, Hartley and Burton, 1919

%	p 0°	p 30°
0	68	95
25.4	-	27
36.1	44	47
44.8	-	73
52.8	100	108
58.5	135	143
64.7	187	199
68.5	230	249
70.8	-	264

%	p_o/p 0°	p_o/p 30°
25.4	-	1.01965
36.1	1.03587	.03506
44.8	.05530	.05400
52.8	.08315	.08063
58.5	.11272	.10873
64.7	.15868	.15295
68.5	.19837	.10243
70.8	.22912	-

Perman and Saunders, 1923

%	p	%	p
70°		90°	
11.99	231.8	14.19	523.8
13.40	233.0	15.39	522.6
14.06	232.0	19.49	521.0
16.13	231.6	24.36	517.5
16.54	232.1	37.21	508.4
21.74	230.8	39.35	507.8
21.78	231.0	40.18	507.1
27.37	228.8	41.74	504.3
31.39	228.4	46.45	500.0
36.02	226.9	51.97	492.4
37.13	226.6	57.54	481.5
45.20	222.0	59.43	476.5
49.49	219.3	60.54	474.6
50.30	219.8	60.81	472.3
54.12	216.9	60.73	472.0
55.18	215.5	65.44	458.3
62.36	207.6	65.70	456.2
64.93	204.8	67.60	445.3
67.52	202.1	69.26	442.5
68.60	199.0	73.28	422.4
68.68	195.3	75.71	394.7
68.88	191.4	76.77	385.7
73.05	188.8		

Mondain-Monval, 1925

t	p 0 %	p 60 %	p 67 %	p 69 %
31.6	34.87	30.68	29.43	-
47.3	80.45	72.68	69.86	68.66

Fricke, 1927

mol %	p 0°	p 10°
92.8	3.620	7.292
90.9	3.854	7.763
89.0	3.994	8.041
86.1	4.122	8.301
79.4	4.290	8.538
66.2	4.420	8.892
28.5	4.501	9.065

Downes and Perman, 1927

%	p	%	p	%	p
		40°			
0.0	55.16	47.32	53.04	69.24	51.16
10.53	54.54	61.80	51.77	78.02	50.00
11.40	54.27	64.63	51.33	78.02	50.12
23.16	54.16	69.24	51.22	93.26	46 51
35.26	53.55				
		50°			
0.0	92.35	36.04	89.55	65.22	85 88
10.51	91.79	46.15	88.81	73.24	83 51
22.32	91.74	51.13	88.45	85.07	80 88
27.25	91.07	53.46	88.20	93.07	76 92
27.49	90.51	55.94	87.52		
		60°			
0.0	149.3	42.20	144.7	82.45	131.8
12.88	148.5	52.81	142.3	89.58	128.2
19.84	147.9	60.82	140.1	89.58	128.1
30.92	146.8	75.41	134.7	93.63	124.7
30.92	146.6	82.45	132.1	103.90	113.8
		65°			
0.0	187.5	51.30	178.5	77.80	168.2
19.72	185.7	62.33	174.2	84.89	164.1
27.97	184.8	62.63	175.2	100.90	147.1
39.78	183.5				
		70°			
0.0	233.8	31.79	228.7	60.99	220.2
8.12	233.1	31.79	228.8	73.10	214.1
11.98	232.9	41.46	226.8	73.10	213.9
17.11	231.4	49.65	224.7	84.43	203.3
17.11	231.5	49.65	224.1	85.70	202.8
23.52	230.3	60.99	219.9	85.70	202.5
23.52	230.2				
		75°			
0.0	289.3	37.58	281.5	70.86	266.1
11.09	288.2	40.71	281.2	78.20	257 7
21.57	285.7	50.69	277.2	81.43	255.3
27.28	284.9	58.34	273.7	85.15	250 8
27.28	284.6				
		80°			
0.0	355.4	59.34	335.7	79.34	314.8
7.30	354.4	64.06	333.6	81.28	313 6
21.19	352.0	65.22	332.4	83.83	308.8
27.17	350.8	68.84	328.7	86.88	307.2
37.43	347.0	74.42	324.1	92.76	294.4
41.45	345.8	74.42	324.5	92.76	294.1
49.97	342.1				

Dunning, Evans and Taylor, 1951

t	p	t	p
	4.1043 mol %	44.85 wt %	
65.09	179.38	80.29	341.61
65.26	180.68	84.97	412.38
70.08	222.77	85.37	417.80
70.39	226.16	89.86	498.28
74.98	274.70	90.28	505.56
75.29	277.76	94.89	601.29
80.08	338.90	95.14	607.33
	4.1077 mol %	44.87 wt %	
60.20	143.145	80.21	340.90
64.89	177.75	84.73	407.99
65.21	180.06	85.07	413.09
70.07	222.95	89.85	497.90
70.46	227.05	90.27	505.67
74.98	274.18	94.47	592.83
75.34	278.61	95.36	612.96
79.49	338.35		
	7.0135 mol %	58.90 wt %	
60.17	136.02	80.07	323.25
60.40	137.63	80.36	327.18
64.88	169.37	84.77	389.45
65.24	171.73	85.04	394.21
70.10	213.00	89.84	474.15
70.21	213.57	90.18	480.69
74.89	260.86	95.10	578.59
75.30	265.02	95.46	586 97
	10.8957 mol %	69.91 wt %	
60.29	126.97	80.33	302.03
65.20	158.30	85.14	366.54
65.49	160.87	85.34	369 00
70.29	198.00	90.10	443.61
70.70	201.79	90.39	448.65
75.10	243.12	94.99	532.44
75.38	246.64	95.30	538.47
80.14	300.09		
	16.0312 mol %	78.39 wt %	
65.00	139.22	79.96	264.47
65.21	140.30	80.27	267.16
69.95	172.81	85.10	324.65
70.07	174.37	85.26	326.93
74.07	206.34	89.98	391.67
74.28	208.19	90.14	395.28
	17.1601 mol %	79.94 wt %	
65.16	135.86	74.91	207.47
65.41	137.00	75.25	210.68
69.95	167.58	80.00	255.94
70.20	169.58	80.19	258.92
72.52	186.86	85.14	315.57
72.76	189.49	85.16	315.16
	18.4232 mol %	81.10 wt %	
75.02	201.80	85.40	306 74
75.43	205.32	90.06	368 42
80.05	248.24	90.33	372.84
80.43	251.58	95.39	452 24
85.08	303.40	95.73	457 37
	19.3924 mol %	82.05 wt %	
85.08	296.96	90.45	365.50
85.45	300.31	95.71	446.31
90.12	360.52		
	20.699 mol %	83.22 wt %	
79.95	232.96	89.96	347.32
80.27	236.25	90.42	353.59
84.94	283.68	95.00	422.36
85.27	287.17	95.37	427.17

Boswell and Cantelo, 1922

N	Dp . $10^5/p_o$
23°	
1.500	3300
1.000	1800

Sinclair, 1933

m	Dp $10^5/p_o$	m	Dp $10^5/p_o$
25°			
0.2	359.2	1.0	1936.0
.4	728.4	.1	2146.1
.6	1104.8	.2	2350.8
.8	1504.8	.3	2557.1
.9	1715.4	.4	2779.0

Beckmann, 1890

%	b.t.	%	b.t.
0	100.000	10.76	100.169
4.63	100.069	14.35	100.242
6.76	100.103	17.81	100.317

Baroni, 1893

%	b.t	%	b t
5.46	100.092	14.01	100 246
8.00	100.134	17.30	100.313
10.99	100.189		

Kahlenberg, 1901

%	b.t.	%	b.t.
739.0 mm			
17.18	99.52	59.84	102.42
22.79	99.64	61.52	102.70
26.55	99.77	62.61	102.92
29.92	99.92	63.65	103.06
33.06	99.97	65.16	103.47
36.45	100.13	66.42	103.78
39.68	100.35	67.44	104.02
43.77	100.63	68.95	104.42
48.18	100.99	70.32	104.82
50.84	101.28	71.27	105.14
53.14	101.42	72.15	105.33
53.47	101.54	72.72	105.63
55.58	101.79	73.41	105.93
57.93	102.12	74.32	106.32

Vivien, 1926

%	b.t.	%	b.t.
0	100	79.64	110
44.17	101	82.38	112
51.77	102	83.55	114
60.14	103	85.78	116
65.14	104.5	86.60	121
75.70	107.5	88.46	125.5
77.18	108.5	90.06	130.5

Tressler, Zimmerman and Willets, 1941

%	b.t.	%	b.t.
0.0	100.000	52.5	102.018
4.8	.071	54.2	.146
14.5	.245	55.0	.202
24.4	.490	55.4	.244
31.0	.690	59.2	.701
34.4	.817	62.5	103.213
37.4	.954	65.6	103.813
42.4	101.220	68.3	104.469
45.3	.405	69.9	104.853
48.4	.602	70.5	105.140
50.8	.827	71.9	105.809

Osmotic pressure

Isopiestic solutions

Robinson, Smith and Smith, 1942

m_1	m_2	m_1	m_2
	25°		
0.1554	0.2792	1.520	2.258
.1921	.3414	1.922	.764
.2014	.3581	2.041	.912
.2538	.4459	.237	3.155
.2729	.4768	.238	.148
.2904	.5057	.314	.243
.5793	.9611	.561	.546
.6173	1.0162	.587	.573
.6506	.0666	.767	.806
.6931	.131	3.074	4.159
.7918	.271	.493	.666
.8553	.365	.529	.698
.8838	.331	.555	.732
1.1028	.709	4.224	5.533
.200	.831	.446	.803
.477	2.203	.503	.864
.519	.259		

m_1 : Potassium chloride

m_2 : Saccharose

Berkeley and Hartley, 1904-6

c	osmotic P	c	osmotic P
	0°		
18.01	13.95	54.04	67.51
30.02	26.77	66.05	100.78
42.03	43.97	75.06	133.74

c	t	osmotic p	c	t	osmotic p
28.5	18.8	22.7	42.0	12.6	44.3
28.5	18.6	27.8	42.0	14.2	45.9
28.5	18.3	26.9	42.0	15.7	46.6
42.0	18.2	44.0	66.0	19.0	105.7
42.0	18.3	40.2	66.0	19.4	103.2
42.0	19.5	47.3	66.0	19.5	107.0

Morse, Frazer and al., 1906

m	t	osmotic P	m	t	osmotic P
0.1	24.05	2.51	0.6	24.35	14.74
.1	24.23	2.55	.6	24.23	14.70
.2	20.90	4.72	.6	24.10	14.77
.2	21.47	4.78	.7	23.68	16.95
.2	21.75	4.81	.7	24.03	16.96
.3	21.65	7.24	.8	23.59	19.30
.3	19.90	7.20	.8	23.68	19.39
.4	21.62	9.64	.9	24.78	21.82
.4	22.15	9.69	.9	24.78	21.91
.5	22.60	12.06	1.0	23.58	24.42
.5	23.70	12.22	1.0	24.55	24.05

Morse, Frazer, and Holland, 1907

m	t	osmotic P	m	t	osmotic P
0.1	0.24	2.40	0.6	0.22	13.99
.2	.26	4.76	.7	.21	16.51
.3	.22	7.03	.8	.22	18.99
.4	.24	9.28	.9	.27	21.60
.5	.21	11.61	1.0	.25	24.00

Morse, Frazer and Dunbar, 1907

m	t	osmotic P	m	t	osmotic P
0.1	4.89	24.10	0.6	5.54	24.20
.2	5.32	23.83	.7	4.45	24.18
.3	4.50	23.67	.8	4.41	24.33
.4	4.50	23.73	.9	4.78	24.81
.5	4.79	23.80	1.0	4.46	24.75

Vegard, 1908

c	t	osmotic P	c	t	osmotic P
		15°			
4.0	0.0	2.88	39.62	7.0	39.85
15.99	0.0	12.15	52.00	11.5	63.80
26.89	9.25	23.17	16.17	10.3	12.48
31.99	0.0	28.80	31.99	11.3	28.67
32.00	0.0	28.85	32.00	11.8	29.29
33.75	4.4	31.57			

H.N.Morse and H.V.Morse, 1908

M	t	osmotic P	M	t	osmotic P
0.1	10	2.44	0.6	10	14.54
.2	10	4.82	.7	10	17.09
.3	10.1	7.19	.8	10	19.73
.4	10.1	9.57	.9	10	22.22
.5	10	12.00	1.0	10.1	24.97

Morse and Mears, 1908

m	t	osmotic P	m	t	osmotic P
0.1	15.00	2.48	0.6	15.00	14.86
.2	14.95	4.91	.7	15.00	17.38
.3	15.05	7.33	.8	15.00	20.07
.4	15.00	9.78	.9	15.00	22.91
.5	15.00	12.29	1.0	15.00	25.40

Morse and Holland, 1909

M	osmotic P	M	osmotic P
	25°		20°
0.1	2.56	0.1	2.522
.2	5.10	.2	5.023
.3	7.57	.3	7.450
.4	10.12	.4	9.960
.5	12.73	.5	12.490
.6	15.42	.6	15.200
.7	18.02	.7	17.840
.8	20.73	.8	20.600
.9	23.66	.9	23.310
1.0	26.33	1.0	26.120

Morse, Holland and al., 1911

t	weight - normal concentration 0.1 N	0.2 N	0.3 N	0.4 N	0.5 N
			osmotic P		
0	2.462	4.722	7.085	9.442	11.895
5	.452	.818	.198	.608	12.100
10	.498	.893	.334	.790	12.297
15	.541	.985	.476	.949	12.549
20	.590	5.064	.605	10.137	12.748
25	.634	5.148	.729	10.296	12.943

t	weight - normal concentration 0.6 N	0.7 N	0.8 N	0.9 N	1.0 N
			P		
0	14.381	16.886	19.476	22.118	24.825
5	14.605	17.206	19.822	22.478	25.283
10	14.855	17.503	20.161	22.884	25.693
15	15.144	17.815	20.535	23.305	26.189
20	15.388	18.128	20.905	23.717	26.638
25	15.624	18.434	21.254	24.126	27.053

Morse, Holland and al., 1912

t	weight - normal concentration 0.1N	0.2N	0.3N	0.4N	0.5N
			osmotic P		
30	2.474	5.044	7.647	10.295	12.978
40	.560	.163	.844	10.599	13.355
50	.635	.278	.974	10.724	13.504
60	.717	.437	8.140	10.866	13.666
70	-	-		-	13.991

t	weight - normal concentration 0.6N	0.7N	0.8N	0.9N	1.0N
			osmotic P		
30	15.713	18.499	21.375	24.226	27.223
40	16.146	18.932	21.803	24.735	27.701
50	16.319	19.202	22.116	25.123	28.213
60	16.535	19.404	22.327	25.266	28.367
70	16.820	19.568	22.567	25.562	28.624
80	-	-	23.062	25.919	28.000

Frazer and Myrick, 1916

%	osmotic P	%	osmotic P
	30°		
25.351	27.22	62.932	175.05
40.448	57.43	67.079	217.80
50.464	94.47	sat.sol.	268.80
57.598	133.95		

Berkeley and Hartley, 1916

%	osmotic P	%	osmotic P
3.28	2.23	25.34	24.55
9.24	6.85	44.83	67.74
17.03	14.21	52.76	100.13
23.44	21.87	58.52	134.84

Lotz and Frazer, 1921

c	osmotic P	c	osmotic P
	30°		55.7°
66.5	56.6	67.4	61.0
68.0	57.5	68.5	63.1
95.8	87.2	99.6	97.4
98.0	90.4	100.0	98.7
99.0	92.0	127.0	132.4
124.2	127.4	128.4	133.5
126.0	129.5	155.6	170.6
154.9	169.5	159.0	178.7
153.3	164.1	187.7	222.0
175.8	198.2	181.0	213.8
173.7	200.2	211.2	259.3
179.6	206.1	219.0	265.3

Freezing curve . (Cryoscopy)

Guthrie, 1876

%	f.t.	%	f.t.
5	-0.3	35	-3.2
10	-0.5	40	-4.1
15	-0.9	45	-5.4
20	-1.3	50	-7.0
25	-1.8	51.4	-8.5 E
30	-2.4	67.33	0.0

Pickering, 1891

%	f.t.	%	f.t.
0.0529	-0.0036	10.8310	-0.7181
.1064	.0059	11.7900	.7913
.1490	.0082	12.6690	.8611
.1969	.0107	13.6700	.9500
.2459	.0134	13.6730	.9446
.2921	.0172	14.6520	1.0261
.3380	.0199	15.7150	.1183
.3940	.0225	16.5270	.1931
.4843	.0288	16.5300	.2300
.5838	.0339	17.5390	.2895
.6803	.0397	18.4200	.3700
.7744	.0445	18.4240	.3724
.8704	.0510	20.41	.58
.9705	.0571	22.19	.77
1.1499	.0669	24.37	2.02
.3857	.0808	26.00	.13
.5464	.0908	27.46	.33
.7473	.1033	30.42	.71
.9355	.1156	31.33	.82
2.4159	.1432	33.35	3.13
2.9060	.1723	35.37	.47
3.4700	.2100	37.29	.81
3.4737	.2079	39.23	4.22
3.8724	.2328	41.09	4.60
4.3542	.2645	43.15	5.07
4.8578	.2956	45.16	5.65
5.3350	.3255	47.00	6.11
5.8171	.3588	48.97	6.76
6.4050	.3997	50.65	7.38
6.4100	.4000	52.67	8.06
6.9020	.4326	54.75	9.02
7.3840	.4669	56.82	9.93
7.8070	.4956	58.86	10.90
8.3230	.5322	60.60	11.69
8.8030	.5679	62.35	12.72
9.7765	.6384	64.49	-13.80
9.7800	-0.6500		

Pickering, 1893

%	f.t.
12.12	-0.8167
17.76	-1.3072

Abegg, 1894

m	f.t.	m	f.t.
0.339	-0.670	0.984	-2.057
0.551	-1.113	1.283	-2.740

Raoult, 1897-99

%	f.t.	%	f.t.
0.97	-0.0532	7.88	-0.4806
2.18	-0.1230	14.74	-0.9892
4.10	-0.2372	25.69	-2.0897

Ewan, 1899

%	f.t.
22.97	-1.768
30.14	2.6824
34.71	3.420
35.98	3.630
41.92	-4.885

Jones,1904; Jones and Getman, 1904

M	f.t.	M	f.t.
0.2	-0.904	1.2	-3.550
.4	-0.848	.4	-4.612
.6	-1.345	.6	-5.800
.8	-1.950	.8	-7.230
1.0	-2.662	2.0	-9.130

Young and Sloan, 1904

%	f.t.	%	f.t.
2.22	-0.122	16.85	-1.124
2.28	.126	16.94	.132
6.78	.395	20.59	.463
6.80	.395	20.68	.469
12.30	.766	23.73	.775
12.33	-0.771	23.83	-1.780

Morse, Frazer and al., 1906

m	f.t.	m	f.t.
0.1	-0.195	0.6	-1.190
.2	.393	.7	.390
.3	.584	.8	.621
.4	.784	.9	.829
.5	-0.983	1.0	-2.066

Maass and Hatcher, 1922

%	f.t.	%	f.t.
3.88	-1.97	30.94	-5.70
11.64	2.60	36.82	7.57
18.66	3.47	42.86	10.30
25.16	-4.72	50.00	-14.32

Kremann and Eitel, 1923

%	f.t.
0.00	0.0
9.234	- 0.61 to - 0.58
19.472	- 1.51 to - 1.57
25.98	- 2.35 to - 2.31
31.75	- 3.03 to - 3.15
37.88	- 4.245
43.77	- 5.75 to - 5.70
44.73	- 6.64 to - 6.68
48.52	- 7.39 to - 7.46
50.00	- 7.78 to - 7.84
51.88	- 8.58 to - 8.34
54.88	-10.34 to -10.27
58.37	-12.21 to -11.95
62.58	-14.43 to -14.51

Babinsky, 1924

%	f.t.	%	f.t.
21.5	-1.60	50.0	-7.31
26.1	2.12	54.7	9.14
35.0	3.42	55.0	9.32
39.6	4.28	59.5	11.66
41.98	4.91	60.0	11.98
48.5	-6.76	62.0	-13.50

Solubility

Courtonne, 1877

%	f.t.
66.5	12.5
71	45

Mondain-Monval, 1925

%	f.t.	%	f.t.
64.27	0.9	37.50	-4.03
66.10	15.8	56.52	-10.42
67.74	25.6	60.00	-12.46
68.50	30.5	61.90	-13.68
		66.67	-17.08 metast.

Grube and Nussbaum, 1928

%	f.t.	%	f.t.
64.21	0	80.61	90
67.99	25	81.76	95
69.52	35	82.47	98
72.24	50	82.96	100
77.25	75		

Ahrens, 1930

%	f.t.	%	f.t.
64.05	0	74.16	60
67.12	20	78.11	80
70.30	40	82.81	100

Benrath, 1942

%	f.t.	%	f.t.
84	107	92	136
86	115	94	144
88	122	100	160
90	130		

Herzfeld, 1941

f.t.	%	f.t.	%
0	64.18	40	70.42
5	64.87	45	71.32
10	65.58	50	72.25
15	66.33	60	74.18
20	67.09	70	76.22
25	67.89	80	78.36
30	68.70	90	80.61
35	69.55	100	82.97

Young and Jones, 1949

%	f.t.	%	f.t.
ice		saccharose anh.	
0.0	0.0	63.6	-13.95 E
10.0	-0.6	63.75	-10.0
20.0	-1.5	64.4	0.0
30.0	-2.65	65.4	+10.0
40.0	-4.4		
50.0	-7.05		
60.0	-11.6		
70.0	-19.05		
80.0	-30.0		
(5+2)		(7+2)	
58.05	-10.5 E	56.20	-9.55 E
58.30	-10.0	63.15	0.0
63.25	0.0	70.65	+10.0
68.50	+10.0	78.25	20.0
73.85	20.0	84.44	27.8
79.45	30.0		
85.20	40.0		
88.37	45.7		
(x+1)		(y+1)	
55.10	-9.05 E	54.00	-8.55 E
58.55	-5.0	56.95	-5.0
62.95	0.0	62.75	0.0
67.50	+5.0	69.30	+5.0
72.20	10.0		

Wise and Nicholsen, 1955

%	f.t.	%	f.t.
66.09	18.5	73.74	57.8
66.97	23.9	73.68	58.4
66.89	24.4	74.10	58.6
67.23	24.9	74.15	59.7
67.21	25.9	74.48	61.1
68.36	30.0	74.47	61.4
68.31	30.5	74.69	62.6
68.73	31.5	74.93	62.9
68.62	33.1	75.05	64.6
69.32	34.5	75.43	65.5
69.42	36.0	75.80	66.4
69.41	36.4	75.95	66.5
70.17	40.2	76.07	68.2
70.23	40.7	76.13	69.0
70.35	41.0	76.32	70.1
70.55	42.2	76.45	70.4
70.74	42.3	77.06	72.8
71.63	46.1	76.98u	73.8
72.12	49.6	77.60	74.5
71.91	50.2	77.52	74.6
72.51	51.1	77.58	75.1
72.72	52.2	78.40	79.5
72.76	52.6	78.85	82.3
73.04	53.6	79.85	85.1
73.05	53.8	79.94	85.3
72.78	54.1	79.99	85.5
73.16	55.8	80.22	86.6
73.50	56.1	80.32	88.0
73.62	56.4	80.87	90.2
73.64	57.5		

Benecke, 1919

f.t.		P kg	
-8.5	51.24%	1 E	
+18.5	"	680 E	+ ice I + sol.
35.2	"	2002 E	
37.5		2200	
36.4		2315	I + II + sol.
33.9		2600	
33.2		2660	+ ice III + sol.
32.4		2775	
31.7		2865	
66.0		2188	ice I + III + sol.

Properties of phases.

Density

Niemann, 1832

%	d	%	d
	17.5°		
0	0.9987	36	1.1567
1	1.0022	37	.1616
2	.0057	38	.1666
3	.0093	39	.1716
4	.0130	40	.1766
5	.0166	41	.1817
6	.0202	42	.1867
7	.0241	43	.1919
8	.0278	44	.1973
9	.0315	45	.2027
10	.0354	46	.2082
11	.0397	47	.2137
12	.0443	48	.2193
13	.0490	49	.2249
14	.0538	50	.2306
15	.0586	51	.2362
16	.0633	52	.2418
17	.0679	53	.2474
18	.0724	54	.2530
19	.0770	55	.2586
20	.0816	56	.2622
21	.0861	57	.2698
22	.0906	58	.2753
23	.0951	59	.2809
24	.0996	60	.2865
25	.1042	61	.2921
26	.1089	62	.2977
27	.1136	63	.3033
28	.1183	64	.3088
29	.1231	65	.3143
30	.1278	66	.3198
31	.1325	67	.3253
32	.1377	68	.3307
33	.1421	69	.3360
34	.1469	70	.3413
35	.1548		

Marignac, 1871

t	d		
	25aq.=43.30%	50aq.=17.51%	100aq.-15.94%
0	1.19953	1.12016	1.06698
5.60	.19777	.11863	.06638
9.97	.19624	.11751	.06567
16.33	.19388	.11649	.06428
21.72	.19170	.11521	.06281
25.56	.19007	.11317	.06163
29.95	.18812	.11124	.06014
35.42	.18558	.10850	.05809

t	d	t	d
200aq.=8.72%		400aq.=4.45%	
0	1.03534	0	1.01808
7.67	.03487	5.60	.01799
11.88	.03429	9.97	.01762
19.22	.03283	16.33	.01666
25.33	.03120	21.72	.01551
30.32	.02964	25.56	.01453
36.86	.02729	29.95	.01331

Gerlach, 1859

%	d	%	d
	17.5°		
0	0.998713		
1	1.002588	38	1.167616
2	.006491	39	.172711
3	.010423	40	.177840
4	.014384	41	.183006
5	.018379	42	.188208
6	.022493	43	.193448
7	.026443	44	.198725
8	.030520	45	.204039
9	.034628	46	.209388
10	.037766	47	.214774
11	.042934	48	.220200
12	.047133	49	.225662
13	.051363	50	.231162
14	.055622	51	.236700
15	.059912	52	.242277
16	.064234	53	.247992
17	.068588	54	.253546
18	.072974	55	.259238
19	.077491	56	.264970
20	.081840	57	.270742
21	.086321	58	.276553
22	.090834	59	.282502
23	.095380	60	.288292
24	.099959	61	.294222
25	.104571	62	.300194
26	.109217	63	.306204
27	.113895	64	.312255
28	.119906	65	.318347
29	.123352	66	.324482
30	.128132	67	.330656
31	.132946	68	.336872
32	.137794	69	.343129
33	.142677	70	.349432
34	.147594	71	.355771
35	.152547	72	.362155
36	.157034	73	.368582
37	.162058	74	.375050
		75	.381562

Chancel, 1872

%	d	%	d
		0°	
0	1	13	1.0541
1	1.0039	14	.0585
2	.0079	15	.0629
3	.0120	16	.0673
4	.0161	17	.0717
5	.0202	18	.0762
6	.0243	19	.0807
7	.0285	20	.0853
8	.0327	21	.0899
9	.0369	22	.0945
10	.0412	23	.0991
11	.0455	24	.1038
12	.0498	25	.1085

Barbet, 1878

%	d	%	d
		15°	
0	0.99913	39.17	1.17436
1.00	1.00382	39.89	.17803
1.98	.00765	40.61	.18169
2.97	.01148	41.33	.18534
3.94	.01531	42.05	.18898
4.90	.01913	42.76	.19261
5.86	.02296	43.47	.19624
6.82	.02679	44.17	.19987
7.76	.03061	44.87	.20350
8.69	.03444	45.56	.20713
9.63	.03826	46.25	.21075
10.55	.04209	46.91	.21437
11.47	.04591	47.62	.21798
12.40	.04974	48.30	.22159
13.30	.05356	48.97	.22520
14.19	.05739	49.63	.22881
15.09	.06121	50.39	.23242
15.98	.06503	50.96	.23603
16.87	.06884	51.62	.23964
17.73	.07265	52.28	.24325
18.58	.07646	52.93	.24686
19.44	.08028	53.58	.25047
20.30	.08409	54.23	.25408
21.15	.08790	54.87	.25768
21.99	.09171	55.50	.26129
22.82	.09552	56.13	.26490
23.64	.09932	56.76	.26851
24.46	.10312	57.39	.27211
25.28	.10691	58.01	.27572
26.10	.11072	58.63	.27933
26.92	.11451	59.24	.28294
27.73	.11830	59.85	.28654
28.52	.12208	60.45	.29015
29.31	.12586	61.05	.29376
30.10	.12964	61.66	.29736
30.88	.13342	62.26	.30097
31.66	.13718	62.86	.30458
32.43	.14094	63.45	.30820
33.20	.14470	63.04	.31182
33.95	.14845	64.62	31544
34.72	.15218	65.20	.31907
35.48	.15590	65.78	.32270
36.23	.15961	66.36	.32633
36.97	.16331	66.92	.32997
37.71	.16700	67.48	.33361
38.44	.17068		

Strohmer, 1884

%	d	%	d	%	d
			17.5°		
1	1.0027	18	1.0730	35	1.1525
2	.0067	19	.0774	36	.1575
3	.0107	20	.0818	37	.1626
4	.0147	21	.0863	38	.1677
5	.0187	22	.0908	39	.1728
6	.0227	23	.0953	40	.1779
7	.0268	24	.0999	41	.1831
8	.0309	25	.1045	42	.1883
9	.0350	26	.1092	43	.1936
10	.0391	27	.1139	44	.1988
11	.0433	28	.1186	45	.2041
12	.0474	29	.1233	46	.2095
13	.0516	30	.1280	47	.2149
14	.0558	31	.1328	48	.2203
15	.0600	32	.1376	49	.2258
16	.0643	33	.1425	50	.2313
17	.0686	34	.1475		

Kanonnikoff, 1885

%	t	d
6.42	23.2	1.02286
8.70	20.4	.03122
11.48	20.0	.04266
15.00	20.0	.05812

Traube, 1885

%	d	%	d
		15°	
0	0.9991	9.09	1.0392
4.76	1.0194	16.67	1.0778

Hammerschmidt, 1889

%	d
	20°
0	0.99823
22.68	1.09296

Bodländer, 1891

c	d
	14°
87.5	1.3246

Nasini and Villavecchia, 1892

%	c	d	%	c	d
		20°			
2.9467	2.9756	1.00982	21.7080	23.6322	1.08864
5.0204	5.1103	.01790	24.5326	27.0165	.10125
5.5697	5.6839	.02049	24.7285	27.2176	.10066
5.7091	5.8259	.02045	25.4953	28.1572	.10560
5.7353	5.8543	.02073	25.8070	28.6410	.10724
6.4318	6.5839	.02364	25.3826	28.0478	.10500
6.6719	6.8265	.02463	26.2443	29.1054	.10902
7.0689	7.2547	.02510	26.3220	29.2050	.10950
7.5149	7.7232	.02777	27.0406	30.0897	.11276
8.5353	8.8084	.03200	27.4488	30.6040	.11495
8.7899	9.0788	.03280	27.8493	31.0926	.11646
10.5906	11.0189	.04044	31.4207	35.6143	.13347
10.6479	11.0805	.04062	31.5643	35.8028	.13428
10.8704	11.3236	.04170	42.4463	50.4411	.18716
11.7761	12.3087	.04523	44.2459	52.9818	.19746
11.9272	12.4752	.04812	44.6549	53.5961	.20022
12.4323	13.0306	.05026	45.5892	54.9473	.20527
12.8951	13.5432	.05106	46.2449	55.8684	.20810
13.1471	13.8058	.05187	46.1939	55.8304	.20861
13.2906	13.9800	.05305	47.1882	57.2884	.21404
13.5836	14.3042	.05803	47.2153	57.3250	.21412
14.8377	15.6987	.06427	47.9860	58.4508	.20808
16.2211	17.2636	.06663	48.2548	58.8670	.21992
16.7790	17.8971	.06985	48.4392	59.1152	.22040
17.5433	18.7687	.07080	48.4840	59.2116	.22130
17.7041	18.9576	.07077	48.9675	59.9083	.22343
17.7103	18.9637	.07497	49.1219	60.1183	.22386
18.6750	18.6750	.07557	49.5688	60.7069	.22469
18.8286	20.2514	.07554	49.8031	61.1796	.22843
18.8341	20.2568	.07584	49.9782	61.4222	.22898
18.8891	20.3217	.08006	50.0658	61.5729	.22984
19.9158	21.5103	.08171	50.2615	61.8266	.23014
20.1591	21.8074	.08244	52.6068	65.4465	.24407
20.4244	22.1082	.08491	55.7431	70.2999	.26114
20.4274	22.1019	.08269	57.6979	73.4454	.27290
20.4459	22.1366	.08500	60.1063	77.3550	.28697
20.9334	22.7128	.08575	60.6579	78.2523	.29006
21.0608	22.8667	.08777	62.4821	81.2942	.30108
21.6100	23.5067		65.1676	85.3317	.30942

Kanonnikoff, 1894

%	d	%	d
	20°		
0	0.99823	34.60	1.14984
10.01	1.03900	36.80	.16079
14.97	.06300	40.72	.17995
20.85	.08601	44.91	.20184
25.95	.10818	49.71	.22905
30.64	.13028	50.51	.24097

%	d
20°	
0	0.99823
2.52	1.00830
5.31	.01880
10.44	.03933
21.97	.08767

Plato, 1900

%	d 0°	10°	15°	20°	25°
0	0.99987	0.99973	0.99913	0.99823	0.99707
1	1.00390	1.00365	1.00301	1.00212	1.00093
2	.00798	.00760	.00693	.00602	.00481
3	.01207	.01157	.01087	.00993	.00872
4	.01619	.01557	.01484	.01388	.01266
5	.02033	.01960	.01884	.01785	.01661
6	.02449	.02366	.02287	.02186	.02060
7	.02867	.02774	.02692	.02588	.02461
8	.03287	.03185	.03100	.02994	.02864
9	.03710	.03599	.03512	.03403	.03271
10	.04135	.04016	.03925	.03814	.03679
11	.04564	.04437	.04343	.04229	.04092
12	.04994	.04859	.04762	.04646	.04507
13	.05429	.05286	.05186	.05066	.04925
14	.05865	.05714	.05612	.05490	.05346
15	.06304	.06146	.06041	.05917	.05772
16	.06746	.06581	.06473	.06346	.06198
17	.07191	.07020	.06909	.06779	.06629
18	.07640	.07461	.07347	.07215	.07062
19	.08092	.07906	.07789	.07654	.07499
20	.08546	.08353	.08233	.08096	.07940
21	.09005	.08805	.08682	.08541	.08382
22	.09466	.09260	.09134	.08990	.08830
23	.09930	.09717	.09588	.09442	.09279
24	.10398	.10178	.10046	.09897	.09731
25	.10869	.10642	.10507	.10356	.10188
26	.11343	.11110	.10972	.10818	.10647
27	.11820	.11581	.11440	.11283	.11110
28	.12302	.12056	.11911	.11751	.11575
29	.12787	.12534	.12386	.12223	.12044
30	.13274	.13014	.12863	.12698	.12517
31	.13766	.13499	.13345	.13177	.12993
32	.14262	.13988	.13831	.13660	.13474
33	.14761	.14480	.14319	.14145	.13956
34	.15262	.14975	.14811	.14634	.14443
35	.15769	.15473	.15306	.15127	.14933
36	.16278	.15976	.15806	.15624	.15427
37	.16791	.16481	.16308	.16124	.15925
38	.17307	.16990	.16814	.16627	.16425
39	.17826	.17504	.17325	.17134	.16931
40	.18349	.18020	.17837	.17645	.17439
41	.18875	.18539	.18355	.18159	.17952
42	.19406	.19063	.18875	.18677	.18468
43	.19939	.19590	.19400	.19199	.18988
44	.20477	.20121	.19927	.19725	.19512
45	.21018	.20657	.20460	.20254	.20039
46	.21562	.21194	.20994	.20787	.20570
47	.22109	.21736	.21534	.21324	.21105
48	.22661	.22281	.22076	.21864	.21644
49	.23216	.22830	.22623	.22409	.22185
50	.23775	.23382	.23173	.22957	.22732
51	.24337	.23939	.23727	.23509	.23280
52	.24903	.24500	.24285	.24064	.23835
53	.25471	.25065	.24847	.24623	.24391
54	.26045	.25632	.25412	.25187	.24953
55	.26621	.26203	.25981	.25753	.25516
56	.27202	.26779	.26554	.26324	.26086
57	.27785	.27358	.27131	.26899	.26657
58	.28373	.27940	.27711	.27477	.27234
59	.28964	.28527	.28296	.28059	.27814
60	.29560	.29117	.28884	.28646	.28399
61	.30158	.29711	.29476	.29234	.28986
62	.30761	.30308	.30071	.29829	.29579
63	.31367	.30911	.30672	.30427	.30175
64	.31978	.31516	.31275	.31028	.30774
65	.32591	.32125	.31882	.31633	.31376
66	.33210	.32738	.32493	.32243	.31984
67	.33831	.33356	.33109	.32855	.32595
68	.34456	.33977	.33727	.33472	.33210
69	.35086	.34601	.34450	.34093	.33828
70	.35719	.35230	.34976	.34717	.34452

	30°	40°	50°	60°
0	0.99567	0.99232	0.98813	0.98330
1	.99952	.99615	.99192	.98705
2	1.00340	1.00001	.99575	.99083
3	.00731	.00387	.99958	.99463
4	.01124	.00777	1.00345	.99846
5	.01518	.01169	.00735	1.00231
6	.01916	.01563	.01127	.00619
7	.02316	.01960	.01521	.01010
8	.02717	.02359	.01918	.01402
9	.03122	.02761	.02319	.01799
10	.03530	.03165	.02720	.02198
11	.03940	.03573	.03126	.02600
12	.04353	.03982	.03533	.03004
13	.04770	.04395	.03943	.03413
14	.05189	.04809	.04356	.03823
15	.05612	.05229	.04772	.04238
16	.06035	.05650	.05191	.04656
17	.06464	.06074	.05614	.05076
18	.06896	.06502	.06038	.05501
19	.07329	.06933	.06467	.05927
20	.07767	.07366	.06898	.06358
21	.08208	.07804	.07333	.06793
22	.08652	.08244	.07771	.07230
23	.09100	.08688	.08212	.07671
24	.09550	.09135	.08657	.08116
25	.10005	.09585	.09106	.08563
26	.10461	.10039	.09557	.09014
27	.10921	.10496	.10012	.09467
28	.11386	.10957	.10470	.09925
29	.11853	.11421	.10932	.10386
30	.12324	.11888	.11398	.10850
31	.12798	.12359	.11866	.11319
32	.13276	.12834	.12340	.11792
33	.13758	.13312	.12816	.12268
34	.14241	.13794	.13295	.12746
35	.14730	.14279	.13779	.13228
36	.15221	.14768	.14265	.13715
37	.15717	.15261	.14756	.14204
38	.16214	.15756	.15249	.14696
39	.16718	.16257	.15748	.15193
40	.17214	.16759	.16248	.15693
41	.17734	.17267	.16753	.16197
42	.18248	.17777	.17262	.16704
43	.18765	.18292	.17774	.17215
44	.19287	.18809	.18290	.17728
45	.19812	.19332	.18811	.18247
46	.20341	.19856	.19334	.18768
47	.20874	.20386	.19861	.19294
48	.21411	.20919	.20392	.19822
49	.21950	.21456	.20926	.20355
50	.22495	.21996	.21465	.20891
51	.23043	.22541	.22006	.21430
52	.23594	.23089	.22552	.21974
53	.24149	.23642	.23101	.22522
54	.24708	.24197	.23655	.23073
55	.25271	.24756	.24211	.23629
56	.25838	.25320	.24773	.24189
57	.26409	.25888	.25337	.24753
58	.26983	.26459	.25906	.25320
59	.27562	.27035	.26479	.25892
60	.28144	.27615	.27058	.26468
61	.28731	.28199	.27638	.27049
62	.29320	.28786	.28224	.27632
63	.29914	.29378	.28813	.28222
64	.30513	.29973	.29406	.28813
65	.31113	.30571	.30002	.29408
66	.31720	.31174	.30604	.30007
67	.32329	.31782	.31209	.30613
68	.32943	.32392	.31818	.31220
69	.33559	.33007	.32430	.31832
70	.34181	.33625	.33047	.32447

Mikhailenko, 1901

%	d
17.5°	
6.40	1.02403
21.48	.08854
31.64	.13612
38.10	.16820
45.08	.20462
50.64	.23451

Rudorf, 1903

N	d
25°	
0	0.9971
0.062	1.0006
0.125	.0047
0.25	.0130
0.50	.0292
1.00	.0619

Jones, 1904 and Jones and Getman, 1904

M	d	M	d
0°			
0.2	1.023616	1.2	1.147680
.4	.049552	.4	.173764
.6	.074540	.6	.195048
.8	.100312	.8	.219296
1.0	.122720	2.0	.244020

Herzfeld, 1904

%	t	d
sat.sol.		
65.41	0	1.3224
66.14	10	.3269
66.93	20	.3317
67.81	30	.3372
68.73	40	.3429
69.72	50	.3491
70.77	60	.3557
71.30	65	.3591

Zoppellari, 1905

%	t	d	%	t	d
0	20	0.99820	34.2826	20.5	1.14779
7.6982	19.1	1.02944	44.0205	21	.19149
16.0488	20.9	1.06387	51.0878	21	.23513

Morse and Frazer, 1905

m	%	d	m	%	d
		20°			
0.05	1.71	1.006538	0.60	17.04	1.069858
.10	3.31	.012920	.70	19.32	.079935
.20	6.41	.025328	.75	20.43	.084805
.25	7.88	.031240	.80	21.50	.089603
.30	9.32	.037120	.90	23.56	.098920
.40	12.05	.048460	1.00	25.49	.107915
.50	14.61	.059385			

Morse, Frazer and al., 1906

m	t maxim.	d	t	d
0.1	+4.2	1.01310	-0.195	1.013095
.2	+3.2	.02570	.393	.025740
.3	+1.0	.03787	.584	.037870
.4	-0.4	.04953	.784	.049510
.5	-1.9	.06079	.989	.060670
.6	-3.7	.07160	-1.190	.071375
.7	-5.0	.08204	.390	.081735
.8	-6.0	.09204	.621	.091595
.9	-7.5	.10175	.829	.101175
1.0	-	.11114	-2.066	.110385

Marek, 1906

See author (Density .)

Getman and Wilson, 1908

%	d	%	d
	17.5°		
5	1.0200	20	1.0832
10	.0404	25	.1059
15	.0614	30	.1295

Pissarewsky and Karp, 1908

M	d	M	d
	12°		
0.094	1.0126	0.357	1.0476
.178	.0239	.500	.0666
.250	.0331	.714	.0957

Anonymous, 1910

%	d	%	d
	20°		
0	0.998234	50	1.229567
1	1.002120	51	.235085
2	.006015	52	.240641
3	.009934	53	.246234
4	.010881	54	.251866
5	.017854	55	.257535
6	.021855	56	.263243
7	.025885	57	.268989
8	.029942	58	.274774
9	.034029	59	.280595
10	.038143	60	.286456
11	.042288	61	.292354
12	.046462	62	.298291
13	.050665	63	.304267
14	.054900	64	.310282
15	.059165	65	.316334
16	.063460	66	.322425
17	.067789	67	.328554
18	.072147	68	.334722
19	.076537	69	.340928
20	.080959	70	.347174
21	.085414	71	.353456
22	.089900	72	.359778
23	.094420	73	.366139
24	.098971	74	.372536
25	.103557	75	.378971
26	.108175	76	.385446
27	.112828	77	.391956
28	.117512	78	.398505
29	.122231	79	.405091
30	.126984	80	.411715
31	.131773	81	.418374
32	.136596	82	.425072
33	.141453	83	.431807
34	.146345	84	.438579
35	.151275	85	.445388
36	.156238	86	.452232
37	.161236	87	.459114
38	.166269	88	.466032
39	.171340	89	.472986
40	.176447	90	.479976
41	.181592	91	.487002
42	.186773	92	.494063
43	.191993	93	.501158
44	.197247	94	.508289
45	.202540	95	.515455
46	.207870	96	.522656
47	.213238	97	.529891
48	.218643	98	.537161
49	.224086	99	.544462

Varga, 1911

%	d	%	d
18°			
0.5974	1.000948	25.9710	1.109189
1.0771	.002814	30.7358	.131789
1.9974	.006421	35.4832	.155465
3.0968	.010764	40.4912	.181230
4.5130	.016405	45.0000	.203770
9.9999	.038756	50.0000	.230155
13.9001	.055155	60.0000	.287216
20.3841	.083525	100.0000	.587681

Golse, 1911

%	d	%	d
16.5°			
2.97	1.0107	11.04	1.0433
4.63	.0169	16.06	.0643
4.95	.0181	18.36	.0742
6.35	.0239	21.48	.0888
6.86	.0256	21.66	.0895
8.49	.0325	29.91	.1280
9.29	.0360	36.91	.1329
9.72	.0371	40.09	.1783
18.5°			
5.01	1.0185	31.00	1.1331
9.77	.0379	34.80	.1510
14.20	.0561	38.53	.1694
18.67	.0758	42.14	.1885
22.92	.0942	49.12	.2250
26.98	.1134		

Butler, 1912

vol %	d
15°	
6.48	1.02422
13.39	.05082
20.52	.07806
27.67	.10560
32.62	.12393

Herz, 1918

%	d
20°	
40	1.1768
20	.0814
10	.0380
5	.0180
0	.0022

Pulvermacher, 1920

%	d
25°	
1.00	1.0009
2.00	.0048
4.85	.0160
9.98	.0367
14.78	.0568
20.10	.0797

Stocker, 1920

%	t	d
0	19.7	0.9983
8.71	19.9	1.0328
10.73	19.5	1.0414
23.63	16.6	1.0983

Vivien, 1926

c	d	c	d
15°			
1	1.00382	28	1.10763
2	.00765	32	.12311
3	.01147	36	.13860
4	.01530	40	.15406
5	.01913	44	.16933
6	.02296	48	.18458
7	.02680	52	.19981
8	.03063	56	.21486
9	.03447	60	.22975
10	.03830	64	.24458
12	.04598	68	.25934
14	.05367	72	.27405
16	.06136	76	.28869
18	.06905	80	.30326
20	.07676	84	.31778
24	.09218	88	.33223

Downes and Perman, 1927

%	d	%	d
40°		50°	
8.608	1.025	8.574	1.021
17.42	.059	17.32	.053
25.75	.087	25.64	.082
35.98	.128	35.83	.123
46.70	.167	46.49	.162
57.15	.207	56.87	.201
65.98	.236	65.64	.231
81.06	.293	80.61	.286
90.80	.329	90.38	.323
60°		65°	
8.533	1.016	9.348	1.016
17.26	.049	19.73	.056
21.79	.064	27.77	.085
25.33	.077	32.90	.104
35.63	.117	42.85	.142
42.47	.141	54.83	.184
46.17	.154	70.86	.246
56.54	.194	86.06	.302
65.34	.225	88.76	.309
80.37	.282		
89.97	.317		
70°		75°	
8.482	1.010	9.283	1.009
10.10	.016	19.57	.047
17.17	.044	27.72	.083
25.40	.072	32.73	.098
29.20	.090	42.63	.136
35.44	.111	54.50	.177
45.97	.149	70.58	.242
56.27	.188	85.67	.296
64.91	.217	88.59	.307
79.82	.273		
89.35	.309		
80°		80°	
5.697	0.994	44.48	1.140
10.12	1.010	53.93	.176
19.16	.045	69.92	.229
26.33	.072	78.11	.265
35.34	.106	94.61	.322

Helderman, 1927

%	d
30°	
4.92	1.01489
9.92	.03494
14.82	.05536

Perman and Urry, 1930

%	d	%	d
30°		40°	
5.20	1.016	5.18	1.0115
14.67	.051	14.61	.047
22.27	.080	22.18	.075
40.96	.150	40.81	.146
57.05	.210	56.75	.204
69.16	.253	68.93	.249
79.75	.293	79.41	.287
50°		60°	
5.16	1.008	5.14	1.004
14.56	.044	14.51	.040
22.11	.072	21.02	.068
40.60	.140	40.42	.135
56.57	.200	56.23	.193
68.60	.243	68.22	.236
78.94	.280	78.57	.274
70°		80°	
5.12	0.999	5.07	0.990
14.41	1.033	14.32	1.026
21.90	.062	21.73	.054
40.21	.129	39.99	.123
55.97	.187	55.68	.181
67.78	.228	61.51	.223
78.14	.267	77.71	.260

Brewster and Phleps, 1933

Density see author . From Brix's Tables

Keffler and Mc Lean, 1935

t	d
40 %	
0	1.1832
30	.1725
60	.1568
90	.1370

Passynsky, 1947

%	d
20°	
4.47	1.0155
7.25	.0268
12.52	.0480
18.34	.0740

Expansion and compressibility coefficient

Mascart and Bénard, 1899

t	$\tau.10^5$		
c (15°)	15	20	25
10 - 15	19	22	24
15 - 20	24	25	27
20 - 25	27	29	30
25 - 30	32	32	34
15 - 30	278	287	302

Schönrock, 1900

Expansion coefficient = 0.000291 + 0.0000037 (p - 23.7) + 0.0000066 (t - 20) - 0.00000019 (p - 23.7) (t - 20), where p and 23.7 are weight % and t and 20 are temperature .

Thörner, 1908

%	Dv (%)
0 - 100°	
0	4.25
20	4.40
50	4.60

Tait, 1898

%	π 1-1000kg	π 1000-2000kg	π 2000-3000kg
12.4°			
0	46.50	45.20	44.10
4.8	44.30	43.16	42.10
9.1	42.65	41.60	40.65
13.0	41.09	40.13	39.20
16.7	39.85	38.75	37.89

Cohen and de Boer, 1913

P	π	P	π
18.64 %		0 %	
238.5 - 423.1	36.7	200 - 300	42.8
313.5 - 643.5	35.5	300 - 400	41.9
423.1 - 630.4	34.7	400 - 500	41.1
643.5 - 860.0	33.7	500 - 600	39.8
630.4 - 893.2	33.3	600 -7 700	39.1
853.2 - 1017.0	32.9	700 - 800	38.2
860.0 - 1340.0	30.1	800 - 900	37.0
1017.0 - 1252.0	29.6	900 - 1000	36.3
1252.0 - 1509.0	29.1	1000 - 1500	33.2

Berkeley, Hartley and Burton, 1919

%	π 0°	π 30°
0	50.7	44.5
25.4	-	36.2
36.1	34.6	36.1
44.8	-	30.0
52.8	27.8	27.3
58.5	25.3	25.6
64.7	23.3	23.6
68.5	22.0	22.8
70.8	-	21.5

Perman and Urry, 1930

%	π 0-100atm.	π 100-200atm.	%	π 0-100atm.	π 100-200atm.
30°			40°		
5.20	43.6	41.71	5.18	42.2	41.0
14.67	40.0	39.0	14.61	39.8	38.5
22.27	37.8	37.0	22.18	37.6	36.9
40.96	33.15	32.2	40.81	33.4	32.0
57.05	29.2	28.6	56.75	29.4	28.6
69.16	26.8	26.1	68.93	26.8	26.3
79.75	24.6	24.4	79.41	24.8	24.5
50°			60°		
5.16	42.01	41.31	5.14	42.5	41.5
14.56	39.8	38.8	14.51	40.1	39.1
22.11	37.9	36.7	21.02	38.1	37.1
40.60	33.2	32.5	40.42	33.5	33.1
56.57	29.7	29.2	56.23	30.1	29.4
68.60	27.2	26.6	68.22	28.0	27.1
			78.57	26.1	25.0
70°			80°		
5.12	43.0	41.9	5.07	44.1	42.8
14.41	40.7	39.5	14.32	41.4	40.4
21.90	38.7	37.7	21.73	39.8	38.5
40.21	34.3	33.6	39.99	35.2	34.4
55.97	30.8	30.0	55.68	31.7	30.55
67.78	28.5	27.7	61.51	29.6	28.2
78.14	26.5	25.7	77.71	27.5	26.3

Passynsky, 1947

%	π
20°	
4.47	44.24
7.25	43.29
12.52	41.54
18.34	40.03

Busz, 1938

%	sound velocity m/sec.
0	1480
12.5	1530
25	1580

Passynsky, 1947

%	sound velocity m/sec.
20°	
4.47	1491.8
7.25	1499.9
12.52	1515.5
18.34	1525.0

Pryor and Roscoe, 1954

%	sound velocity m/sec.		
	20°	40°	60°
0	1479	1527	1551
40	1650	1674	1677
60	1801	1800	1790
69	1884	-	-

Viscosity and surface tension

Rudorf, 1903

M	η	M	η
25°			
0	895	0.25	954
0.062	900	0.50	1040
0.125	916	1.00	1255

Pissarewsky and Karp, 1908

M	η (water=1)	M	η (water=1)
12°			
0.094	1.0908	0.357	1.4371
0.178	1.1875	0.500	1.6962
0.250	1.2476	0.714	2.2718

Hosking, 1909

t	η					
	0%	1%	5%	10%	20%	40%
0	1794	1810	2048	2436	3720	14760
5	1520	1537	1729	2050	3042	11330
10	1309	1331	1488	1754	2578	8950
15	1143	1168	1292	1518	2212	7300
20	1009	1031	1139	1328	1910	6070
25	897	911	1009	1173	1674	5080
30	802	812	901	1041	1485	4233
35	724	737	809	933	1319	3618
40	657	670	732	843	1180	3132
45	601	609	668	763	1059	2728
50	553	555	611	699	961	2410
55	510	511	564	640	872	2140
60	472	473	521	592	799	1908
65	437	438	487	549	732	1722
70	407	410	455	512	676	1553
75	382	387	427	480	629	1414
80	360	362	399	448	586	1288
85	339	340	377	421	548	1182
90	320	320	349	389	511	1093

Orth, 1911

%	η ($H_2O^{20°}$=1)			
	20°	30°	40°	50°
60	629	433	322	254
62	857	554	392	298
64	1231	741	494	358
66	1880	1014	647	443
68	3082	1540	886	570
70	5491	2442	1279	764
72	10785	4184	1965	1076
74	23749	7850	3247	1605
76	59676	16374	6416	2563

%	η ($H_2O^{20°}$=1)			
	60°	70°	80°	90°
60	210	181	161	146
62	239	200	174	155
64	276	225	191	167
66	328	258	213	183
68	401	302	242	202
70	506	365	281	228
72	665	453	334	262
74	915	585	409	308
76	1330	788	519	372

Herz, 1918

%	η
20°	
1	1031
5	1127
10	1322
20	1910
40	6004

Bingham and Jackson, 1918

t	η	t	η
0 %			
0	1789	60	470
10	1306	70	406
20	1005	80	356
30	802	90	315
40	653	100	282
50	550		
20.00 %			
0.44	3731	45.00	1070
9.96	2659	54.99	884.2
9.98	1962	64.96	871.8
24.99	1705	74.94	635.3
35.00	1332	85.03	549.9
39.99 %			
0.32	14510	45.00	2845
9.96	9246	50.00	2497
14.97	7490	54.99	2218
19.98	6250	64.96	1779
24.99	5180	74.94	1463
30.00	4384	85.03	1219
35.00	3761	95.30	1032
40.00	3247		
59.94 %			
9.96	110100	64.96	9283
24.99	44200	74.94	6243
35.00	26330	85.03	4698
45.00	17030	94.30	3882
54.99	11580		

Pulvermacher, 1920

%	η(water=1)	%	η(water=1)
25°			
1.00	1.026	9.98	1.329
2.00	.054	14.78	.570
4.85	.141	20.10	.917

Mühlendahl, 1927

t	η	t	η
60 %			
16.0	64500	23.0	42300
17.0	62100	25.0	36900
19.0	54100	28.0	30800
21.0	47500		
62 %			
15.5	97200	24.0	55300
17.0	87200	26.5	46100
19.0	75000	29.0	39800
22.0	63400		
64 %			
16.0	142200	24.0	80300
18.0	121100	27.0	65300
20.0	107500	29.0	55700
22.5	84300	31.5	47500
66 %			
19.0	190300	25.5	117200
23.0	136800	29.0	88600

Taimni, 1929

%	η 50°	45°	40°	35°	30°
70.0	68000	88000	120000	167000	237000
72.0	102000	135000	190000	270000	396000
75.0	202000	283000	400000	605000	980000
76.5	311000	450000	660000	1042000	1650000
77.8	455000	685000	1088000	1625000	-

Bennett and Nees, 1930

%	t	η
67.89	25	191000
68.70	30	162000
70.42	40	126000
72.25	50	102000
74.18	60	89000
76.22	70	82000

Sprenglin and Landt, 1930

%	η	%	η
23°			
10.20	1370	64.5	126800
29.90	3210	66.2	180700
44.85	9120	67.0	219000
50.20	15600	67.05	223800
55.00	27700	67.8	289000
57.30	38300	68.9	355800
61.55	74600	70.4	499500
62.95	95300		

Busz, 1938

%	η (water=1)
14 - 16°	
0	1.0
12.5	1.1
25	1.6

Delachanal, 1877

Surface tension as function of areometric degrees Brix.

Traube, 1885

%	σ
15°	
0	73.26
4.76	72.50
9.09	72.92
16.67	73.39

Forch, 1899

M	t	σ
0.53	18.00	73.58
.265	18.25	73.27
.132	13.00	73.12

Piepenstock, 1908

Surface tension (see author) .

Stocker, 1920

%	t	σ
0	19.7	72.28
8.71	19.9	72.76
10.73	19.5	73.13
23.63	16.6	73.47

Smolenski and Kozlowski, 1931

%	σ	%	σ
20°			
0	73.00	35	76.07
5	73.44	40	76.50
10	73.88	45	77.02
15	74.31	50	77.45
20	74.75	55	77.94
25	75.19	60	78.48
30	75.63		

Optical and electrical properties

Barbier and Roux, 1890

c	t	dispersive power
10.0	12.1	0.355
20.0	11.2	.367
40.0	10.7	.389
50.0	12.4	.397
60.0	11.1	.406

Strohmer, 1884

%	n_D	%	n_D
17.5°			
0	1.3332	26	1.3703
1	.3355	27	.3719
2	.3368	28	.3734
3	.3381	29	.3750
4	.3394	30	.3765
5	.3407	31	.3781
6	.3420	32	.3797
7	.3433	33	.3812
8	.3447	34	.3829
9	.3460	35	.3845
10	.3474	36	.3862
11	.3487	37	.3878
12	.3501	38	.3895
13	.3515	39	.3912
14	.3529	40	.3828
15	.3542	41	.3846
16	.3557	42	.3863
17	.3571	43	.3880
18	.3585	44	.3897
19	.3594	45	.4015
20	.3614	46	.3832
21	.3628	47	.3850
22	.3643	48	.3868
23	.3658	49	.3886
24	.3673	50	.4105
25	.3688		

Kanonnikoff, 1885

%	t	n Hα	n D	n Hβ
6.42	23.2	1.34051	1.34237	1.346650
8.7	20.4	.34410	.34600	.350500
11.48	20	.34853	.35042	.355250
15	20	.35415	.35612	.361072

Kanonnikoff, 1894

%	n_D	%	n_D
	20°		
0	1.33298	34.60	1.38962
10.01	.34796	36.80	.39363
14.97	.35656	40.72	.40124
20.85	.36612	44.91	.40932
25.95	.37392	49.71	.41946
30.64	.38240	50.51	.42433

Matthiessen, 1898

%	t	n Liα	n Hα	n D	n Hβ	n Hγ
0	19.0	1.33097	1.33130	1.33318	1.33726	1.34042
0	35.2	.32938	.32971	.33161	.33558	.33889
1	19.0	.33231	.33271	.33457	.33862	.34193
2	19.0	.33374	.33403	.33596	.34001	.34328
3	19.0	.33532	.33579	.33754	.34146	.34490
4	19.0	.33683	.33705	.33907	.34313	.34648
5	19.0	.33820	.33849	.34047	.34471	.34804
10	19.0	.34541	.34579	.34775	.35192	.35531
10	35.8	.34383	.34418	.34602	.35030	.35356
15	19.0	.35361	.35392	.35588	.36018	.36360
20	19.0	.36167	.36201	.36385	.36829	.37187
20	36.6	.35953	.35989	.36168	.36601	.36950
25	19.0	.37024	.37067	.37254	.37708	.38078
30	19.0	.37905	.37945	.38137	.38597	.38962
30	36.2	.37671	.37699	.37896	.38351	.38722
35	19.0	.38836	.38873	.39077	.39531	.39915
40	19.0	.39774	.39812	.40016	.40490	.40876
40	37.0	.39509	.39546	.39758	.40212	.40607
45	19.0	.40751	.40793	.40998	.41477	.41864
50	19.0	.41809	.41854	.42050	.42570	.42940
50	37.2	.41500	.41542	.41732	.42268	.42626
55	19.0	.42860	.42905	.42113	.43621	.44016
60	19.0	.44003	.44039	.44250	.44777	.45180
60	37.0	.43677	.43718	.43918	.44452	.44849
70	19.0	.46346	.46389	.46611	.47151	.47568
70	33.8	.46086	.46123	.46347	.46881	.47295
75	19.0	.47471	-	.47750	-	-

Wagner, 1903

c	n_D	c	n_D	c	n_D
			17.5°		
0	1.33320	7.610	1.34426	14.862	1.35461
0.264	.33358	7.870	.34464	15.119	.35497
0.528	.33397	8.130	.34500	15.376	.35533
0.791	.33435	8.390	.34537	15.633	.35569
1.054	.33474	8.650	.34575	15.890	.35606
1.317	.33513	8.910	.34612	16.146	.35642
1.580	.33551	9.170	.34650	16.402	.35678
1.843	.33590	9.430	.34687	16.658	.35714
2.106	.33628	9.690	.34724	16.914	.35750
2.369	.33667	9.950	.34761	17.170	.35786
2.633	.33705	10.209	.34798	17.426	.35822
2.897	.33743	10.468	.34836	17.681	.35858
3.160	.33781	10.727	.34873	17.936	.35894
3.423	.33820	10.986	.34910	18.191	.35930
3.686	.33858	11.245	.34947	18.446	.35966
3.949	.33891	11.504	.34984	18.701	.36002
4.212	.33934	11.763	.35021	18.956	.36038
4.475	.33972	12.022	.35058	19.212	.36074
4.738	.34010	12.281	.35095	19.466	.36109
5.001	.34048	12.540	.35132	19.721	.36145
5.262	.34086	12.798	.35169	19.976	.36181
5.523	.34124	13.056	.35205	20.230	.36217
5.784	.34162	13.314	.35242	20.483	.36252
6.045	.34199	13.572	.35279	20.735	.36287
6.306	.34237	13.830	.35316	20.986	.36323
6.567	.34275	14.088	.35352	21.236	.36359
6.828	.34313	14.346	.35388	21.485	.36394
7.089	.34350	14.604	.35425	21.733	.36429
7.350	.34388				

Zoppellari, 1905

%	t	n_D
7.6982	19.1	1.34454
16.0488	20.9	.35752
34.2826	20.5	.38913
44.0205	21.0	.40580
51.0878	21.0	.42330

Main, 1907

%	n(Abbè)	%	n(Abbè)
	20°		
85.0	1.5033	45.3	1.4101
83.8	.5001	40.2	.4001
80.0	.4901	34.9	.3900
76.1	.4802	29.5	.3801
72.0	.4700	23.8	.3701
67.8	.4600	17.8	.3600
63.5	.4500	11.5	.3500
59.2	.4401	5.0	.3400
54.8	.4300	0.0	.3330
50.0	.4201		

Getman and Wilson, 1908

%	n_D	%	n_D
	17.5°		
5	1.34050	20	1.36378
10	.34750	25	.37213
15	.35570	30	.38086

Golse, 1911

%	n_D	%	n_D
	16.5°		
2.97	1.3377	11.04	1.3498
4.63	.3400	16.60	.3577
4.95	.3404	18.36	.3615
6.35	.3425	21.48	.3666
6.86	.3433	21.66	.3669
8.49	.3457	29.91	.3813
9.29	.3470	30.91	.3836
9.72	.3476	40.09	.4006
	18.5°		
5.91	1.3406	31.00	1.3835
9.77	.3478	34.80	.3902
14.20	.3546	38.53	.3974
18.67	.3618	42.14	.4042
22.92	.3689	49.12	.4184
26.98	.3760	58.59	.4380

Schönrock, 1911

%	n_D	%	n_D
	20°		
0	1.3330	33	1.3865
1	.3344	34	.3883
2	.3359	35	.3902
3	.3374	36	.3920
4	.3388	37	.3939
5	.3403	38	.3958
6	.3418	39	.3978
7	.3433	40	.3997
8	.3448	41	.4016
9	.3464	42	.4036
10	.3479	43	.4056
11	.3494	44	.4076
12	.3510	45	.4096
13	.3526	46	.4117
14	.3541	47	.4137
15	.3557	48	.4158
16	.3573	49	.4179
17	.3590	50	.4200
18	.3606	51	.4221
19	.3622	52	.4242
20	.3639	53	.4264
21	.3655	54	.4285
22	.3672	55	.4307
23	.3689	56	.4329
24	.3706	57	.4351
25	.3723	58	.4373
26	.3740	59	.4396
27	.3758	60	.4418
28	.3775	61	.4441
29	.3793	62	.4464
30	.3811	63	.4486
31	.3829	64	.4509
32	.3847	65	.4532
		66	.4555

Miller and Worley, 1918

%	n_D	%	n_D
	0°		
72.51	1.47605	77.54	1.48953
73.52	.47858	77.55	.48896
74.55	.48150	78.41	.49147
75.46	.48378	79.47	.49433
76.27	.48603	80.54	.49729

t	n_D	t	n_D
	78.37 %		
48.5	1.48063	73.5	1.47500
60.7	.47801	74.3	.47486
61.4	.47783		

Pulvermacher, 1920

%	n_D	%	n_D
	25°		
1.00	1.3349	9.98	1.3482
2.00	.3312	14.78	.3556
4.85	.3404	20.10	.3644

Schönrock, 1921

%	n C	n D	n E
		20°	
0	1.33115	1.33299	1.33713
26.712	.37327	.37527	.37980
49.509	.41681	.41896	.42390
64.577	.44997	.45224	.45749

Tressler, Zimmerman and Willits, 1941

%	n_D	%	n_D
	20°		
0.0	1.3333	52.5	1.4253
4.8	.3400	54.2	.4290
14.5	.3549	55.0	.4308
24.4	.3712	55.4	.4315
31.0	.3829	59.2	.4400
34.4	.3890	62.5	.4475
37.4	.3948	65.6	.4546
42.4	.4045	68.3	.4610
45.3	.4102	69.9	.4649
48.4	.4161	70.5	.4663
50.8	.4218	71.9	.4698

Andrews, 1889

%	t	$(\alpha)_D$
23.686	18.5	66.415
-	41.5	66.174
15.344	19.0	66.642
-	39.9	66.405
-	20.1	66.664

Hammerschmidt, 1889

%	$(\alpha)_D$
20°	
22.68	66.457

Nasini and Villavecchia, 1892

%	$(\alpha)_D$	%	$(\alpha)_D$
20°			
2.9467	66.611	21.7080	66.347
5.0204	66.259	24.5326	66.641
5.5697	66.520	24.7285	66.633
5.7091	66.552	25.4953	66.599
5.7353	66.492	25.8070	66.365
6.4318	66.492	25.3826	66.327
6.6719	66.348	26.2443	66.487
7.0689	66.495	26.3220	66.467
7.5149	66.339	27.0406	66.568
8.5353	66.535	27.4488	66.492
10.5906	66.490	27.8493	66.339
10.6479	66.403	31.4207	66.238
10.8704	66.427	31.5643	66.381
11.7761	66.627	42.2459	66.185
11.9272	66.639	44.2459	66.349
12.4323	66.464	44.6549	66.254
12.8951	66.537	45.5892	66.206
13.1471	66.591	46.2449	66.271
13.2906	66.390	46.1939	66.297
13.5836	66.505	47.1882	66.157
14.8377	66.590	47.2153	66.055
16.2211	66.587	47.9860	66.142
16.7790	66.513	48.2548	66.996
17.5433	66.512	48.4840	66.145
17.7041	66.388	48.9675	65.883
17.7103	66.487	49.1219	65.940
18.6750	66.499	49.5688	66.132
18.8286	66.506	49.8031	66.357
18.8341	66.483	49.9782	66.088
18.8891	66.477	50.0658	66.093
19.9158	66.518	50.2615	66.046
20.1591	66.368	52.6068	66.081
20.4244	66.509	55.7431	66.096
20.4274	66.242	57.6979	65.869
20.4459	66.264	60.1063	65.810
20.9334	66.509	60.6579	65.762
21.0608	66.488	62.4821	65.611
21.6100	66.533	65.1676	65.820

Schönrock, 1900

23.65% - 23.70% 17.5° $(\alpha)_D$ = 65.803 -66.581

temperature coefficient = 0.000217 ± 0.000009

Butler, 1912

vol%	α
15°	
6.48	8.39
13.39	17.49
20.52	27.15
27.67	36.50

Bruhat and Chatelain, 1932

%	Rotatory dispersion			
	5461Å	4358Å	4056Å	3657Å
26	0.848	0.517	0.436	0.344
16	.849	.514	.436	.346
10	.852	.518	.438	.351
26	0.849	0.518	0.438	0.345
16	.851	.518	.439	.348
10	.848	.514	.435	.349

Two series Rotatory dispersion, between $(\alpha)_D$ and (α) considered

Kreinin, 1945 (fig.)

%	κ	%	κ
19° at sound frequency			
0	0.06	40	0.05
10	.08	50	.03
18	.09	60	.01
30	.07		

%	κ			
w.l. (in cm)	30.49	42.0	49.1	68.2
19°				
0	11	28	10	4
20	25	50	20	10
40	48	72	38	24
60	76	105	65	40

N.B. The authors give also curves for w.l. = 143.6, 194.4, 238.4, 303.6, 375.6, 438.2 and 500.4

Harrington, 1916

N	ε	N	ε
	18°		
0	78.73	0.7	73.84
0.1	77.64	0.9	72.52
.2	76.73	1.0	71.84
.4	75.53	1.2	70.36
.5	75.05	1.4	68.67
.6	74.46		

Lattey, 1921

%	t	ε (sol.)	ε (0%)
6.84	13	81.2	82.80
11.92	14	69.8	82.45
20.60	16	79.0	81.75

Fürth, 1923

%	ε
20°	
0.0	80.5
10	79.5
20	74
30	67
40	60
50	49
60	39

Kockel, 1925

t	ε	t	ε
	0 %		
0	87.90	39.0	72.51
3.95	86.29	50.1	68.93
9.8	83.97	59.4	65.73
15.0	81.99	70.3	62.77
20.3	79.67	79.0	60.80
25.0	77.81	89.5	58.31
30.2	76.10	98.7	55.51
	5 %		
0	86.64	7.0	83.49
0.7	86.21	8.1	83.19
1.3	86.02	8.1	83.09
1.6	85.81	8.65	82.81
2.7	85.51	9.4	82.69
3.3	85.17	10.4	82.20
4.0	84.91	11.4	81.80
4.2	84.80	12.3	81.46
5.2	84.39	13.5	81.03
5.6	84.14	14.43	80.66
6.4	83.74		
	5 % (second series)		
7.6	83.36	49.5	67.97
9.2	82.77	53.6	66.76
11.8	81.59	56.5	65.73
13.3	81.01	60.6	64.56
13.5	80.94	66.7	62.80
13.8	80.96	76.7	60.14
13.95	80.81	75.8	59.30
15.6	80.17	86.8	57.37
17.5	79.14	91.6	56.11
18.8	78.94	92.1	56.29
19.4	78.73	92.3	55.17
22.3	77.81	95.5	55.17
26.9	75.91	97.0	54.61
29.8	74.77	97.6	53
30.0	74.66	99.0	33
37.7	71.84	99.3	16
43.5	69.86		
	10 %		
0	85.49	39.5	70.10
2.2	84.54	44.6	68.37
3.3	84.04	49.6	66.76
5.4	83.13	50.5	66.49
8.2	81.97	55.2	65.04
10.7	81.11	60.0	63.56
12.9	80.17	64.9	62.14
14.0	79.66	69.5	60.91
14.2	79.58	76.5	58.90
14.6	79.41	80.0	58.01
18.4	77.87	84.5	56.80
19.0	77.77	85.1	56.64
19.5	77.50	89.1	55.40
20.9	76.97	94.3	54.10
25.3	75.23	99.0	52.59
29.0	73.83	99.3	52.56
34.0	71.97		

t	ε	t	ε
	20 %		
- 1.5	87.26	34	69.54
0	82.77	38	67.84
+ 1.7=	81.99	44	66.23
3.3	81.33	50	64.37
5.3	80.43	50	64.31
7.9	79.39	54	62.81
10.45	78.40	56	62.41
13.55	77.23	60	61.37
15.4	76.54	65	60.00
15.8	76.40	69	58.00
16.4	76.03	74	57.50
17.1	75.83	79	55.90
17.4	75.47	85	54.39
19.9	74.63	89	53.04
24.9	72.81	94	51.50
25.0	72.74	99	50.06
30.1	70.84		
	30 %		
- 2.15	80.66	43.3	63.77
- 1.7	80.50	49.65	62.04
0	79.69	56.2	60.19
+ 2.6	78.70	60.5	58.89
5.0	77.71	60.8	58.79
6.9	76.89	64.6	57.69
10.15	75.63	69.0	56.43
13.25	74.37	75.4	54.67
15.5	73.53	79.5	53.39
15.75	73.47	84.7	51.89
15.7	73.41	89.5	50.47
20.7	71.50	93.7	49.13
26.5	69.43	94.3	49.21
29.7	68.29	94.0	47.67
34.1	66.76	99.5	47.31
40.2	65.13	99.8	47.16
	40 %		
- 3.5	78.00	33.1	64.54
- 3.2	77.93	36.95	63.24
- 1.2	77.19	41.9	61.75
+ 0.4	76.60	48.2	60.00
1.1	76.19	52.2	58.90
4.15	74.93	57.5	57.37
6.6	73.96	63.2	55.76
9.6	72.67	67.7	54.44
12.9	71.43	72.4	53.07
14.9	70.71	76.3	51.89
15.5	70.46	81.6	50.34
17.4	69.81	86.0	49.09
18.9	69.37	90.4	47.89
19.1	69.26	95.6	46.34
22.4	65.07	100.7	44.53
27.4	66.31		

Kniepkamp, 1928

%	ε	
	1	2
10	74.63	69.78
15	73.40	68.16
20	72.32	64.69

Åkerlöf, 1932

t	ε			
	0%	10%	20%	30%
10	84.2	81.5	78.8	75.9
20	80.4	78.0	75.4	72.6
30	76.7	74.2	71.7	68.9
40	73.1	70.7	68.3	65.7
50	69.9	67.5	65.0	62.5
60	66.6	64.4	62.0	59.4
70	63.5	61.2	58.8	56.2
80	60.6	58.2	55.8	53.2
90	57.8	55.4	52.9	50.4
100	55.1	52.7	50.2	47.6

t	ε			
	40%	50%	60%	70%
10	72.8	-	-	-
20	69.8	65.7	61.2	55.0
30	66.1	62.4	58.2	52.5
40	63.0	59.4	55.5	50.1
50	59.8	56.3	52.5	47.6
60	56.8	53.4	49.8	45.1
70	53.6	50.5	47.1	42.7
80	50.5	47.6	44.3	40.3
90	47.7	-	-	38.0
100	44.8	-	-	35.7

Slevogt, 1939

Absorption and dispersion for different electric waves lengths in 30 %, 50 % and 65 % solutions .

Malmberg and Maryott, 1950

%	ε		
	20°	25°	30°
0	80.38	78.54	76.76
10	78.04	76.19	74.43
20	75.45	73.65	71.90
30	72.64	70.86	69.13
40	69.45	67.72	66.05
50	65.88	64.20	62.57
60	61.80	60.19	58.64

Magie, 1901

mol%	U
	room temp.
98.04	0.8479
99.01	.9115
99.34	.9375
99.50	.9609

Hunter, 1926

m	U		
	12°	20°	28°
0.5	0.90	0.91	0.94
1.0	.81	.84	.88
2.0	.73	.75	.79
4.0	.69	.70	.74

Vivien, 1926

d	U	d	U
	15°		
1.00	1.00000	1.14	0.81560
.03	0.95661	.16	.79580
.04	.94277	.18	.77393
.05	.92920	.20	.75280
.06	.91590	.22	.73183
.07	.90281	.24	.71150
.08	.89001	.26	.69160
.09	.87746	.28	.67201
.10	.86514	.30	.65358
.12	.84122	.33	.62550

Helderman, 1927

%	U	%	U
	19°		
0.00	0.9992	9.92	0.9495
4.92	0.9785	14.82	0.9209

Hüttig and Wehling, 1927

%	U	%	U
	4 - 40°		
0	1	52.75	0.751
39.59	0.832	57.70	.722
42.32	.815	62.43	.695
45.04	.798	100.00	.3227
48.68	.777		

Gucker Jr., and Ayres, 1937

%	U		%	U	
	20°	25°		20°	25°
0.3500	0.99793	0.99793	19.087	0.89137	0.89404
.4285	.99757	.99757	29.660	.83190	.83593
.6783	.99605	.99617	45.275	.74567	.75102
1.1184	.99343	.99376	52.267	.70769	.71354
1.3598	.99219	.99240	58.229	.67612	.68228
3.2338	.98149	-	66.548	.63251	.63895
8.3061	.95251	.95376			

Vallender and Perman, 1931

%	Q*	%	Q*
		0°	
58.94	-0.53	49.40	-0.25
56.98	-0.43	47.39	-0.18
55.03	-0.38	45.31	-0.15
51.27	-0.28		
		20°	
63.39	1.68	46.49	0.57
61.82	1.52	41.20	0.40
60.32	1.39	40.07	0.37
56.51	1.19	34.84	0.26
55.05	1.06	30.18	0.21
53.62	0.92	25.88	0.13
52.20	0.86	22.39	0.083
47.79	0.65	18.99	0.068
		40°	
66.75	-2.48	45.78	-0.64
63.96	-1.94	38.24	-0.45
62.43	-1.67	37.02	-0.40
60.81	-1.48	34.48	-0.34
59.26	-1.39	31.66	-0.26
57.75	-1.33	28.66	-0.23
56.26	-1.17	23.86	-0.17
54.80	-1.12	18.93	-0.12
47.03	-0.70		
		60°	
67.97	-2.16	52.50	-1.10
66.23	-2.00	51.24	-1.03
64.59	-1.82	49.99	-0.96
63.23	-1.75	47.14	-0.81
63.07	-1.73	44.60	-0.73
61.77	-1.63	41.95	-0.59
59.78	-1.53	39.38	-0.54
58.90	-1.43	36.91	-0.48
56.67	-1.26	33.24	-0.36
53.83	-1.17	28.72	-0.28
		80°	
68.79	-2.02	48.82	-0.98
66.35	-1.87	43.83	-0.79
63.94	-1.75	42.23	-0.73
61.59	-1.64	36.10	-0.54
59.33	-1.48	29.91	-0.37
50.67	-1.14	23.52	-0.19

*Q by gr. aq. added .

Hunter, 1926

m initial	m final	Q dil.
	12°	
3.0	2.72	-0.62
1.5	1.35	-0.21
1.0	0.90	-0.093
0.8	0.72	-0.050
0.5	0.44	-0.010
	16°	
4.0	3.62	-1.08
3.0	2.77	-0.67
2.0	1.87	-0.34
1.5	1.35	-0.21
1.0	0.92	-0.11
0.9	0.81	-0.075
	18°	
4.0	3.59	-1.09
3.0	2.78	-0.73
1.5	1.38	-0.26
1.0	0.92	-0.102
0.8	0.74	-0.086
0.5	0.45	-0.044
	22°	
3.0	2.77	-0.83
2.0	1.79	-0.43
1.5	1.34	-0.26
1.0	0.90	-0.12
0.8	0.71	-0.086
	26°	
4.0	3.71	-1.25
3.0	2.78	-0.869
2.0	1.85	-0.450
1.0	1.37	-0.298
0.8	0.92	-0.125
0.5	0.74	-0.066
-	0.45	-0.040
	30°	
4.0	3.62	-1.25
3.0	2.72	-0.82
2.0	1.86	-0.47
1.5	1.36	-0.30
0.8	0.73	-0.11

Water + Inverted sugar ($C_6H_{12}O_6$)

Green, 1908

M	d	M	d
18°		25°	
0	0.99865	0	0.99712
0.1518	1.01884	0.1723	1.01976
.1565	.01945	.2779	.03358
.3078	.03937	.3875	.04788
.3337	.04276	.6603	.08328
.6607	.08555	.7242	.09158
1.0439	.13520	.7947	.10062
.1468	.14842	.9629	.12228
.3609	.17580	1.1205	.14240
.3650	.17632	.3472	.17124
.4010	.18089	.5905	.20196
.4310	.18570	.8255	.23146
.8248	.23435	2.0517	.25964
2.1876	.27940	2.2710	.28676
.5030	.31800		
.6973	.34150		

N	η	N	η
18°		25°	
0	1058.0	0	895.3
0.1518	1218.0	0.1723	1043.1
.1565	1220.9	.2779	1154.1
.3078	1427.9	.3875	1290.3
.3337	1473.0	.6603	1760.2
.6607	2149.6	.7242	1908.8
1.0439	3708.1	.7947	2091.4
.1468	4406.5	.9629	2638.7
.3609	6502.1	1.1205	3345.3
.3650	6528.1	.3472	4897.0
.4010	7007.6	.5905	7810.0
.4310	7551.5	.8255	13280.0
.8248	18223.0	2.0517	23880.0
2.1876	52362.0	2.2710	46580.0
.5030	170620.0		
.6973	398360.0		

Powell, 1914

%	η 25°	30°	35°	40°	45°	50°
0	895	802	725	659	603	554
9.66	1187	1047	932	846	767	707
14.25	1378	1213	1078	971	875	796
18.66	1622	1433	1270	1138	1024	933
22.92	1951	1710	1504	1336	1191	1080
27.04	2366	2049	1795	1593	1420	1278
31.03	2954	2539	2204	1949	1725	1546
34.88	3683	3132	2713	2364	2082	1858
42.21	6171	5100	4321	3731	3232	2842
49.16	11490	9415	7781	6530	5524	4757

Water + Lactose ($C_{12}H_{22}O_{11}$)

Hudson, 1908

t	p(l+l)	t	p(l+l)
sat.sol.			
50	8.98	80	33.21
60	14.38	90	47.73
70	22.25	100	66.40

t	p (anh.)
sat.sol.	
60	7.3
70	12.4
80	24.6
90	43.3

Jones, 1904 and Jones and Getman, 1904

M	f.t.
0.2	- 0.364
.3	- 0.574
.4	- 0.792
.5	- 1.030

Hudson, 1908

%	f.t.	%	f.t.
10.6	0	29.8	49
14.5	15	39.7	64
17.8	25	46.3	74
24.0	39	58.2	89

m	f.t.
0.3185	-0.591
0.4805	-0.911

Gillis, 1920

%	f.t.	%	f.t.
34.9	57.1	63.9	107.0
39.1	63.9	69.4	121.5
45.8	73.5	73.2	133.6
49.6	79.1	75.3	138.8
55.1	87.2	81.1	158.8
56.0	88.2	86.7	178.8

Whittier, 1933

%	f.t.	%	f.t.
4.53	-0.280	22.23	-1.731
8.65	-0.557	27.49	-2.353
12.39	-0.839	32.06	-2.986
15.83	-1.125	36.09	-3.672
19.00	-1.426	39.61	-4.344

Meissl, 1880

%	d	%	d
	17.5°		
4.89	1.01964	18.91	1.07899
9.92	.04019	35.36	.15664
18.98	.07979		

Schmoeger, 1880 and Fleischmann and Wiegner, 1910

%	d	%	d
	20°		
2.3554	1.0072	17.2680	1.0666
2.3652	.0071	17.9170	.0694
2.6242	.0082	20.0506	.0783
4.5820	.0157	20.3871	.0899
4.6680	.0162	23.6354	.0939
4.9346	.0170	24.3528	.0972
5.0949	.0173	24.7852	.0992
5.2109	.0181	25.6825	.1033
8.3068	.0301	26.0811	.1049
10.1650	.0376	30.1814	.1233
10.6006	.0393	32.4619	.1341
11.2220	.0418	35.7690	.1492
11.3794	.0424	36.0776	.1513
11.4324	.0424	42.306	.1816
14.8548	.0566	50.881	.2260
15.9500	.0611	60.769	.2812
16.4120	.0631	62.046	.2888
16.6639	.0642	69.087	.3303

Jones, 1904 and Jones and Getman, 1904

M	d	M	d
	0°		
0	0.999868	0.4	1.047832
0.2	1.023172	0.5	1.060704
0.3	1.034984		

Fleischmann and Wiegner, 1910

%	d	%	d
	20°		
10	1.0370	50	1.2216
20	.0784	60	.2769
30	.1227	70	.3366
40	.1703	100	.5453

Golse, 1911

%		d
	18.5°	
4.65		1.0172
7.56		.0273
14.35		.0580
18.47		.0716
22.51		.0888
26.97		.1093

Pulvermacher, 1920

%	d	%	d
	25°		
0	0.9971	11.66	1.0448
1.28	1.0018	17.06	.0681
2.78	.0092	23.38	.0969
5.80	.0204		

Mc Donald and Turcotte, 1948

%	d 20°	d 25°
0.843	-	1.00024
1.467	-	1:00255
1.766	1.00490	-
2.172	1.00644	-
4.125	-	1.01264
4.596	1.01570	-
6.337	-	1.02114
7.924	-	1.02730
8.389	1.03048	-
11.519	-	1.04154
11.596	1.04492	-
12.963	1.04882	-
15.074	-	1.05599
17.451	1.06738	-
17.798	1.06884	-
18.681	1.07357	-

Pulvermacher, 1920

%	η(water=1)	%	η(water=1)
	25°		
0	1	11.66	1.450
1.28	1.037	17.06	1.779
2.78	.086	23.38	2.371
5.80	.187		

Kanonnikoff, 1894

%		n_D
	20°	
0		1.33298
2.52		.33675
5.31		.34073
10.44		.34837
21.97		.36684

Golse, 1911

%	n_D	%	n_D
		18.5°	
4.65	1.3400	18.47	1.3604
7.56	.3438	22.51	.3670
14.35	.3551	26.97	.3746

Pulvermacher, 1920

%	n_D	%	n_D
		25°	
0	1.3325	11.66	1.3517
1.28	.3350	17.06	.3605
2.78	.3380		
5.80	.3423		

Mc Donald and Turcotte, 1948

%	n_D 15°	n_D 20°	n_D 25°
0.843	-	-	1.33371
1.766	-	1.33551	-
2.066	-	-	1.33534
2.608	-	1.33671	-
4.125	-	-	1.33841
5.151	-	1.34038	-
5.292	1.3410	-	-
6.337	-	-	1.34158
7.134	-	1.34330	-
7.924	-	-	1.34396
10.023	1.3480	-	-
11.519	-	1.34988	1.34933
11.567	-	1.34995	-
15.074	-	-	1.35478
16.533	-	1.35765	-
19.351	1.3629	-	-
20.468	-	-	1.3634
23.933	1.3701	-	-
25.504	-	-	1.3720
28.145	1.3772	-	-
30.257	-	-	1.3800
35.750	-	-	1.3899
36.238	1.3919	-	-

Meissl, 1880

%	$(\alpha)_D$ 10°	17.5°	20°	30°
4.89	82.06	80.45	79.95	78.05
9.92	82.58	80.97	80.39	78.21
18.98	83.32	81.71	81.15	79.05
18.91	83.20	81.72	81.26	79.20
35.36	84.66	82.96	82.50	80.44

Schmoeger, 1880

%	$(\alpha)_D^{mol}$	%	$(\alpha)_D^{mol}$
	20°		
2.3554	52.69	15.9500	52.56
2.3554	52.90	16.4120	52.50
2.3652	51.94	16.6639	52.45
2.6242	52.38	17.2680	52.28
4.5820	53.18	17.9170	52.40
4.6688	52.59	20.0506	52.63
4.9346	52.21	20.3871	52.60
5.0949	52.48	23.6354	52.35
5.2109	52.40	24.3528	52.43
8.3068	52.47	24.7852	52.49
10.1650	52.62	25.6825	52.64
10.6006	52.66	26.0811	52.68
11.2220	52.30	30.1814	52.52
11.3794	52.60	32.4619	52.59
11.4324	52.77	35.7690	52.65
14.8548	52.56	36.0776	52.41

Pryor and Roscoe, 1954

%	t	velocity of sound (m/sec.)
0	20	1479
23.4	25	1582
35	21	1633

Water + Mannose ($C_{12}H_{22}O_{11}$)

Riiber and Minsaas, 1927

c	%	d
	20°	
0	0	0.948232
4.7007	4.63	1.016335
9.4574	9.14	1.034554
19.7439	18.38	1.073630

c	n_D
20°	
0	1.3330000
5.09087	.3402247
10.04124	.3472317
10.18557	.3474361

Water + Maltose ($C_{12}H_{22}O_{11}$)

Gillis, 1924

wt%	mol%	f.t.
12.36	0.74	-0.79
16.67	1.04	-1.16
23.97	1.63	-1.87

%	f.t.	%	f.t.
0.6	35.8	58.8	49.4
0.6	36.4	60.2	54.2
21.0	44.0	63.7	59.8
21.0	44.2	66.7	66.3
29.6	48.0	72.3	74.2
34.4	49.6	79.3	87.0
43.5	55.3	85.1	96.5
49.4	57.8		

Kanonnikoff, 1894

%	d
20°	
0	0.99823
8.11	1.03200
16.98	.07200
23.25	.12200

Ost, 1895

%	d	%	d
	20°		
0	0.9982	10.3498	1.0400
2.0667	1.0061	10.5385	.0409
2.0513	.0062	11.1050	.0430
4.8133	.0172	16:3674	.0657
5.0152	.0178	19.4793	.0796
5.5369	.0200	19.5616	.0798
9.8385	.0378	19.5662	.0799
9.8856	.0379		

Brown, Morris and Millar, 1897

%	d	%	d
	15.5°		
0	0.99905	10.775	1.04311
2.4339	1.00373	12.189	.04914
2.4935	.00897	14.679	.05992
4.8411	.01845	19.264	.08018
5.6435	.02173	20.004	.08347
5.7213	.02204	23.529	.09959
9.4759	.03762	33.020	.14472

Pulvermacher, 1920

%	d	%	d
	25°		
0	0.9971	4.77	1.0160
1.16	1.0017	9.60	.0362
2.32	1.0054	19.40	.0777

%	η (water=1)	%	η (water=1)
	25°		
0	1	4.77	1.157
1.16	1.040	9.60	1.371
2.32	1.079	19.40	2.025

Kanonnikoff, 1894

%	n_D
20°	
0	1.33298
8.11	.34521
16.93	.35930
28.25	.37902

Pulvermacher, 1920

%	n_D	%	n_D
	25°		
0	1.3325	4.77	1.3406
1.16	.3354	9.60	.3482
2.32	.3368	19.40	.3639

Mc Donald, 1951

% (1+1)	n_D	% (1+1)	n_D
	20°		
1.563	1.33518	31.034	1.38126
5.015	.34008	36.666	.39128
7.003	.34294	40.995	.39918
12.929	.35180	44.801	.40640
14.410	.35404	50.713	.41807
20.512	.36362	55.537	.42781
25.197	.37135	59.798	.43674
25.586	.37200	65.529	.44920
	25°		
3.312	1.33709	39.837	1.39633
10.180	.34707	40.405	.39725
12.530	.35051	50.992	.41777
25.530	.37026	65.551	.44842

Ost, 1895

%	$(\alpha)_D$	%	$(\alpha)_D$
	20°		
2.0667	136.96	10.3498	136.94
2.0513	137.23	10.5385	137.19
4.8133	136.95	11.1050	137.07
5.0152	136.89	16.3674	136.66
5.5369	136.68	19.4793	136.88
9.8385	137.16	19.5616	137.01
9.8856	136.71	19.5662	137.03

Brown, Morris and Millar, 1897

%	$(\alpha)_D$	%	$(\alpha)_D$
2.4339	138.06	10.775	137.94
2.4935	137.96	12.189	137.99
4.8411	137.99	14.679	138.03
5.6435	137.85	19.264	137.80
5.7213	137.94	20.004	137.71
9.4759	137.99	23.529	137.57
		33.020	137.35

Water + Raffinose ($C_{18}H_{32}O_{16}$)

Perman and Price, 1912

c	p	c	p
70°			
11.97	233.2	68.87	220.56
18.67	232.5	72.06	218.71
29.78	230.5	88.49	212.79
43.80	228.6	95.51	210.5
53.49	226.17	107.01	200.7

Water + Dextrin ($C_6H_{10}O_5$)

Pickering, 1893

%	f.t.
32.49	-1.1775
32.40	-1.1082
21.84	-0.6208

Water + Acetaldoxime (C_2H_5ON)

Somogyi, 1916

%	capillary constant (a^2)
20°	
1.043	4.067
2.219	6.531
4.549	6.033
8.842	5.415
14.690	4.870

mol%	capillary constant (a^2)
1.0	5.740
0.5	6.350
0.25	6.740

Water + Acetoxime (C_3H_7ON)

Beckmann,

%	b.t.	%	b.t.
0.952	100.235	9.587	102.195
2.365	100.580	13.04	102.885
4.458	101.080	16.21	103.470
7.173	101.685		

Water + Benzaldoxime (C_7H_7NO)

Schoevers,

$L_1 + L_2 + C$ . . 16° 100% 35°

LXIV. WATER + PHENOLS .

Heterogeneous eqilibria

Eqilibrium L + V

Water + Phenol (C_6H_6O)

Keesing, 1909

mol%	crit.t.	mol%	crit.t.
0.0	364.5	35.0	378.75
6.0	358.75	50.0	394.4
10.0	356.5	100.0	419.2
20.0	363.7		

Lehfeldt, 1899

t	p	t	p	t	p	t	p
67.36%		77.82%		82.70%		90.46%	
50	92.0	70	231.2	40	53.9	25	21.9
65	187.2	75	284.3	50	86.9	40	46.2
75	287.1	80	347.3	60	138.4	50	75.0
85	428.2	85	421.3	65	172.8	60	117.8
90	517.8	90	508.9	70	214.6	65	144.4
				75	264.1	70	180.3
				80	333.3	75	220.7
				85	391.5		
				90	472.1		

Schükarew, 1910

%	p	%	p
	69°		
0	223.0	40.19	224.2
11.90	223.7	48.21	222.0
20.48	224.2	57.14	224.3
30.41	224.0	70.72	224.2

Ferguson, 1927

%	p
75°	
0	289.1
7.19	290.5
23.33	290.2
46.81	290.1
59.76	289.2

van der Lee, 1900

t	p	t	p	t	p	t	p
4.8%		10.1%		18.9%		33.6%	
72.4	263	77.2	321	72.2	260	71.2	251
73.9	280	77.3	323	72.3	262	72.2	261
74.9	291	77.5	325	72.9	269	73.1	272
75.1	294	81.9	388	73.7	277	74.1	284
76.1	306	85	438	75.5	299	74.4	288
77.4	323			75.7	301	75.5	300
78.5	338			76.5	312	76.7	315
79.9	357			77.7	328	76.9	318
81.6	382			77.9	331	77.0	319
83.0	403			78.9	344	77.7	328
83.8	416			79.6	353	78.7	343
85.4	443			80.5	367	79.4	352
86.6	464			81.6	384	79.9	360
87.0	471			83.0	405	80.9	375
				84.4	428	81.6	385
						82.6	400
						84.2	426
						85.0	440

t	p	t	p	t	p
50.9%		77.2%		84%	
71.2	251	73.3	253	75.9	212
71.4	253	73.5	254	76.3	215
72.4	264	74.5	262	77.5	229
73.7	277	75.5	276	77.9	234
74.6	289	76.5	282	79.7	253
76.0	306	77.7	296	81.6	274
77.2	321	78.9	311	82.8	287
78.3	337	79.3	315	85.8	323
79.3	351	80.6	330	89.0	381
81.3	378	81.0	336	89.1	382
81.8	386	81.6	344	89.4	389
82.8	401	83.2	367		
83.8	417	84.4	387		
85.6	448	86.2	419		
86.6	462	86.4	422		
86.7	468	87.6	444		
86.8	470				

Schreinemakers, 1900

t	p	% L_1	% L_2	% V
29.8	29	8	70	5.96
38.2	48	9.5	67	6.98
42.4	62	10	66	6.91
50.3	94	12	63	7.28
56.5	126	14.5	60	7.83
60.1	150	17	57	8.06
64.4	182	22.5	48	8.66

56.3°

% L	% V	p
0	0	125
2.00	2.55	125
5.58	5.49	127
7.42	6.57	126.5
10.88	7.42	127
14.56	7.83	126
69.20	9.88	124
76.70	9.88	122
80.34	11.98	118
88.06	11.98	102

90°

% L	% V	p
0	0	525
2.36	3.64	528
7.00	7.69	531
8.29	8.30	531
9.74	8.96	530
17.4	10.40	530
20.4	10.40	530
33.6	10.78	530
35.0	10.78	530
42.2	10.87	530
44.2	10.87	530
56.3	11.24	530
58.0	11.24	530

75°

% L	% V	p
0	0	289
2.43	3.44	295
4.15	5.21	293
7.51	7.41	294
16.82	9.11	294
22.53	9.36	294
24.18	9.36	294
44.44	9.85	294
49.20	9.85	294
60.47	10.43	292-293
65.67	10.43	289
76.70	12.63	280
82.40	12.63	259
88.06	21.37	218
91.70	21.37	177

Rhodes, Wells and Murray, 1925

760 mm

% L	% V
2.29	3.87
4.29	5.87
6.19	8.13
10.12	9.49
10.57	9.51
16.61	10.58
26.55	11.14
39.70	11.71
49.90	11.82
71.14	12.74
73.18	12.12 ?
89.20	15.20
89.40	15.45
90.58	15.79
95.50	25.94
96.69	34.56
97.51	50.14
100.00	100.00

260 mm

% L	% V
4.26	4.36
6.62	5.81
10.05	7.23
17.01	8.14
60.27	8.85
71.56	8.95
80.37	10.09
92.27	15.55
93.13	17.21
95.05	20.28
98.46	58.90

40 mm

% L	% V
1.94	1.92
3.02	2.63
3.74	3.54
32.35	4.30
75.55	4.47
88.80	8.01
95.42	17.31
97.91	30.95

A.N. Campbell and A.J.R. Campbell, 1937

% L_1	% V	p
76.2	-	3.5
80.2	-	5.2
84.5	1.7	-
84.5	-	6.4
90.6	-	7.3
91.0	7.7	9.3
91.5	-	9.9
92.0	-	10.2
92.7	-	10.1
92.9	-	10.2
93.2	8.8	-
95.0	-	10.1
95.3	-	10.2
95.5	-	10.0
96.1	14.3	-
97.0	-	9.7
97.2	-	9.3
	-	9.0

Brusset and Gagnes, 1953

t	wt% L	wt% V	mol% L	mol% V
at b.t.				
100	0	0	0	0
99.90	4.2	6.2	0.75	1.25
99.87	5.95	7.65	1.21	1.56
99.85	7.15	8.55	1.46	1.77
99.80	8.35	8.80	1.71	1.81
99.70	8.70	9.00	1.79	1.86
99.60	9.20	9.20	1.90	1.90
99.80	12.60	10.99	2.65	2.17
100.1	18.88	11.08	4.26	2.37
100.3	32.58	11.55	8.51	2.44
100.7	55.70	11.77	19.53	2.49
101.3	69.99	11.78	30.00	2.52
101.8	90.00	16	63.20	3.80
124	98.99	49	94.92	15.50
150	99.68	76	98.50	41.10
160	99.92	85	99.55	52.20
169	99.95	92.5	99.80	70.00
182	100.00	100	100.00	100.00

Lehfeldt, 1899

%	b.t.
4.8	99.846
9.0	99.831 Az
13.0	99.839
16.4	99.846

Lecat, 1949

%	b.t.
9.2	99.57 Az
100	182.20

Hill and Malisoff, 1926

t	% L2	% L1	t	% L2	% L1
20	72.16	8.36	65.24	44.09	-
25	71.28	8.66	65.79	-	27.77
30	69.90	9.22	66.01	-	29.13
35	67.63	9.91	65.79	-	30.21
54.83	59.22	-	65.90	-	31.35
57.30	-	14.87	65.84	-	32.23
59.20	55.76	-	65.86	-	32.79
62.55	51.87	-	65.84	34.23	-
62.74	-	19.35			

A.N.Campbell and A.J.R.Campbell, 1937

sat.t.	% L1	% L2	% V	p
3.1	6.8	75.5	-	3.8
7.9	6.8	74.4	-	6.7
10.0	7.0	74.3	1.7	-
13.2	7.0	73.6	-	9.4
15.0	7.1	72.7	2.2	-
18.1	7.2	72.5	-	13.3
21.7	7.3	72.2	-	19.7
26.2	7.5	70.8	4.3	24.2
30.7	7.5	69.5	-	31.7
34.3	7.6	68.3	-	38.1
35.6	7.7	68.0	5.4	-
38.7	7.8	66.8	-	49.3
44.5	8.7	65.0	-	67.9
46.2	9.0	64.0	6.3	-
49.5	9.5	62.8	-	87.5
55.0	11.3	59.5	7.6	-
55.5	11.5	59.2	-	116.2
59.9	14.0	56.0	7.9	145.1
62.0	15.0	53.5	-	158.5
65.0	18.5	50.0	8.5	-
65.4	20.0	49.0	-	183.2

% L1	% L2	sat.t.
6.8	76.0	+ 1.3
6.9	75.6	2.6
7.8	71.2	23.9
7.5	70.7	29.6
8.0	69.0	32.5
7.8	66.6	38.8
9.7	64.4	45.7
11.5	62.0	50.0
12.0	60.0	55.5
13.6	57.7	59.8
14.0	55.5	60.5
15.0	54.0	61.8
18.5	50.0	65.0
34.5	34.5	66.8 C.S.T.

Howell, 1932

t	% L1	% L2	t	% L1	% L2
20	8.12	71.8	60	16.1	55.1
30	8.86	69.2	62	17.7	52.8
40	9.84	66.1	64	20.0	49.8
50	12.00	61.6	66	24.6	44.7

Megson, 1938

sat.t.	% L1	% L2
25	7.5	70.5
50	12.0	62.5

Rabinovich, Fedorov and al., 1955 (fig.)

t	mol% L1	mol% L2	t	mol% L1	mol% L2
15	1.5	34	50	2.5	24
30	1.5	30	60	4	19
40	2	28	66.5	9	9

Alexejew, 1886

%	sat.t.	%	sat.t.
7.12	1	36.70	67
10.20	45	48.86	65
15.31	60	61.15	53
26.15	67	71.97	20
28.55	67		

Rothmund, 1898

%	sat.t.	%	sat.t.
8.26	17.80	35.52	68.95
9.20	32.90	46.79	65.50
10.43	43.75	55.11	61.35
13.93	55.40	62.96	49.90
18.76	62.00	68.91	32.70
33.95	68.67	74.05	12.30

Scarpa, 1904

%	sat.t.	%	sat.t.
7.6	30.5	51.05	65.0
10.14	49.0	63.50	53.8
20.13	63.6	69.03	30.7
30.72	65.8	73.80	18.2
40.70	65.5		

Timmermans, 1907

%	sat.t.	%	sat.t.
9.45	38.0	53.86	60.2
16.16	58.8	64.70	42.7
34.23	65.2	71.40	20.6
36.51	65.3		

Smits and Maarsee, 1912

mol %	sat.t.
0	+ 1.74
10	69.5
20	55
30	30
35	12.2

Moles, 1913

%	sat.t.
8.54	+30.8
17.09	+60.6
29.71	+66.8
50.00	+63.5
59.79	+55.7
73.00	+14.6

Leone and Angelescu, 1922

%	sat.t.	%	sat.t.
11.15	46.5	26.06	65.8
13.17	53.5	35.43	66.6
15.77	58.6	37.42	65.8
19.16	62.5	46.46	64.4
21.36	63.8	54.98	58.8
25.48	65.2	58.12	54.4

Hill and Malisoff, 1926

sat.t.	% L_2	% L_1
20	72.16	8.36
25	71.28	8.66
30	69.90	9.22
35	67.63	9.91

Dolique, 1932

%	sat.t.	%	sat.t.
73.06	13.1	35.87	66.5
72.10	18.8	34.00	66.5
70.85	25.0	34.31	66.5
69.60	30.0	31.54	66.4
67.85	35.3	28.48	66.3
65.90	40.8	25.57	65.8
64.18	45.2	25.00	65.7
61.03	52.3	19.74	63.5
60.50	53.3	18.63	62.8
57.31	57.8	16.32	60.7
56.30	58.8	14.66	58.05
54.02	61.1	11.35	48.8
50.00	63.7	9.56	40.5
45.63	65.3	8.65	33.5
45.29	65.4	8.23	27.0
41.59	65.9	7.91	22.0
38.84	66.4	7.70	15.0

Smith, 1932

%	sat.t.	%	sat.t.
17.49	55.2	34.39	65.4
21.50	63.1	36.29	65.5
26.80	65.2	50.21	62.5
29.27	65.3	55.98	60.4
31.49	65.3	60.02	53.5
33.88	65.4		

Duckett and Patterson, 1925

C.S.T. 36.1% 66.0°

Howard and Patterson, 1926

C.S.T. 36.1% 66.0°

Krishnan, 1935 and 1937

C.S.T. : 34% 69°

Krichevskii, Khazanova and Linshits, 1954

C.S.T. = 67°

Quantie, 1954

34.0% C.S.T. 65.0°

van der Lee, 1900

P	C.S.T.	P	C.S.T.	P	C.S.T.
22%		34%		38%	
1	66.7	1	67.6	1	67.3
30	66.7	30	67.6	60	67.5
60	66.9	60	67.8	90	67.7
90	67.0	90	67.8		
120	67.1	105	68.0		
150	67.2	130	68.1		
180	67.3				
47%		49%		55%	
1	64.8	1	65.0	1	61.2
60	65.1	30	65.0	30	61.2
90	65.3	60	65.1	60	61.3
120	65.3	90	66.2	90	61.3
		120	65.3		
		150	65.5		
		180	65.6		

Timmermans and Kohnstamm, 1910

C.S.T. = 68.9° dt/dp (1 - 150Kg/cm$_2$) = +0.0033

Timmermans, 1922

P	C.S.T.	Dt/Dp
10	66.21	+0.0036
200	66.90	+0.0036
10	66.26	39
200	67.00	39
200	67.32	44
600	69.08	44
1000	71.15	52
200	66.78	40
600	68.39	40
1000	70.61	55

Alexejev, 1886

%	f.t.
83.36	5.5
92.97	19.5
97.18	32

Van Bylert, 1891

%	f.t.	%	f.t.	
100.0	38.8	76.6	0.51	V+L$_1$+L$_2$+C
95.7	24.2	76.1	+1.40	
94.5	20.25	6.8	-1.19	
90.3	11.50	6.0	-1.12	
87.4	7.15	4.8	-0.98	
84.7	4.15	2.9	-0.68	
82.2	3.65	2.0	-0.36	
79.7	1.37	0.0	0	
78.5	2.12			

Paterno and Ampola, 1897

%	f.t.	%	f.t.
100.0	40.37	1.71	71.08
99.45	38.26	1.72	68.97
99.16	37.16	1.74	65.96
98.89	35.16	1.74	61.40
98.35	34.16	1.74	58.51
98.10	33.28	1.74	56.57
97.67	32.26	1.04	47.74
96.82	28.83	1.71	43.51
96.55	28.15	1.70	38.58
96.31	27.35	1.66	34.21
96.05	26.65	-1.03	28.18
95.78	25.83	-1.24	21.90
95.52	25.07	+0.29	21.25
95.26	24.39	-1.71	13.93
94.78	22.77	-1.18	10.30
94.39	21.63	-1.24	9.06
93.74	20.33	-2.79	9.18
93.33	19.24	-2.87	7.11
92.26	17.50	-1.15	6.11
91.19	14.40	-0.95	5.26
91.08	13.63	-0.95	5.07
89.22	10.78	-0.81	4.21
87.61	8.70	-0.60	3.28
85.13	6.02	-0.49	2.31
81.29	3.77	-0.36	1.74
78.85	2.49	-0.28	1.35
76.75	1.82	-0.19	0.93
76.40	1.78	-0.09	0.44
75.77	1.77	-0.05	0.22
		0.0	0.00

Paterno, 1896

%	f.t.	%	f.t.
100	40.18		
99.273	37.50	88.764	12.28
97.649	31.80	87.654	10.89
96.780	29.24	86.115	9.23
95.891	27.14	84.043	7.41
94.759	23.51	81.293	5.51
93.711	21.16	77.315	3.72
92.674	19.01	72.272	2.26
90.598	15.08		

Emery and Cameron, 1900

sat.sol. E: -1.179°

Rosza, 1911

%	f.t.	%	f.t.
100	40.05	5.138	-0.932
99.594	38.50	4.223	-0.763
98.401	34.11	3.855	-0.690
97.488	30.92	2.904	-0.521
91.623	16.24	2.011	-0.374
87.436	8.52	1.769	-0.335
84.520	7.84	0.988	-0.190
83.899	5.25	0	0

Smits and Maarsee, 1912

mol%	f.t.	mol%	f.t.
0	- 1.2	50	15
-	- 1.0	60	15.5
-	+ 1.74	66.5	16
10	-	67.5	15.8
20	-	70	18
30	-	80	25
35	12.2	90	33
40	13.5		

Moles, 1913

%	f.t.	%	f.t.
8.54	- 1.238	73.00	- 1.264
17.09	- 1.245	79.96	+ 3.47
29.71	- 1.247	92.19	17.14
50.00	- 1.246	97.80	32.25
59.79	- 1.254	99.00	36.52
		100.00	40.55

Rhodes and Markley, 1921

%	f.t.		%	f.t.		E
		I				
100	40.8		82	13.30		-
98	33.0		80	13.00		-
97	29.3		78	12.70		-
95	23.1		76	12.40		-
92	16.2		74	12.30		-
91.84	15.9		73	12.20	L_1+L_2	-
91.75	15.8	E	65	"		-
91.59	15.9		30	"		-0.85
91.44	15.9		25	"		"
91.26	15.9	(1+1)	12	"		"
91.00	15.9		9	"		"
90	15.75		5	-0.85		"
89	15.45		3	-		-0.60
88	15.10		2	-		-0.45
86	14.40		1.5	-		-0.35
84	14.00		0	0		-
		II				
91	14.1		20	0		-1.2
88	9.3		12	0		"
85	6.2		10	0		"
82	4.2		9	1.1		"
80	3.1		8	0.9		"
78	2.3		7.5	0.6		"
77	2.0		7	0		"
76	1.8		6.5	-1.2		"
75	1.7		6	-		-1.1
65	1.7	L_1+L_2	5	-		-1.0
50	1.7		0	0		-
25	1.7					

Bailey, 1925

%	f.t.	%	f.t.
0	0	36.5	65.3 C.S.T.
6.5	-1.2 E	75.0	1.7 L_1+L_2+C
7.6	+1.7	100.0	40.8

A.N. Campbell and A.J.R. Campbell, 1937

%	f.t.	%	f.t.
76.2	1.5	92.7	24.9
80.2	5.3	92.9	25.0
84.5	10.0	93.2	25.8
84.5	10.2	95.0	28.9
88.0	15.7	95.3	29.7
90.6	20.4	95.5	30.0
91.0	21.4	96.1	31.5
91.5	22.2	97.0	33.4
92.0	23.6	97.2	35.0

%	f.t.	%	f.t.
0.9	- 0.3	79.2	4.9
1.8	- 0.4	79.8	7.2
3.3	- 0.7	85.2	10.2
4.0	- 1.0	87.8	16.1
5.0	- 1.2	89.1	16.7
5.8	- 1.3	90.0	19.3
		91.4	21.9

Properties of phases

Density

Perkin, 1896

%	d 4°	d 5°	d 10°
16.074	1.0723	1.0715	1.0675
0	1.0	1.0	0.9997

%	d 15°	d 20°	d 25°
16.074	1.0635	1.0594	1.0556
0	0.9991	0.9982	0.9971

Friedländer, 1901

t	d	t	d	t	d
0%		9.54%		12.04%	
35.29	0.9941	38.71	0.9997	50.27	0.9955
45.34	.9902	39.28	.9995	50.90	.9951
55.23	.9857	40.86	.9987	52.00	.9946
65.28	.9806	45.91	.9964	56.03	.9924
75.28	.9748	52.99	.9927	62.25	.9887
83.61	.9697	62.93	.9870	69.62	.9841
		80.01	.9764	79.88	.9775
24.17%		30.93%		36.13%	
65.22	0.9925	66.18	0.9951	66.17	0.9976
65.78	.9922	66.75	.9947	66.74	.9972
66.84	.9914	67.76	.9939	67.89	.9963
69.68	.9894	70.77	.9916	70.77	.9943
73.68	.9865	74.79	.9888	75.06	.9909
80.16	.9818	80.19	.9847	79.96	.9872
40.46%		45%		65.04%	
66.11	0.9995	65.46	1.0023	43.04	1.0299
66.77	.9990	66.07	.0018	43.51	.0296
67.82	.9982	67.08	.0012	44.71	.0286
70.78	.9960	70.28	0.9985	49.47	.0250
74.86	.9929	75.45	.9953	56.61	.0192
80.07	.9887	80.17	.9907	66.87	.0108
				80.07	0.9996
99.28%					
40.63	1.0580				
59.29	.0497				
60.48	.0400				
70.61	.0321				
80.62	0.9996				

Howell, 1932

%	d 20°	d 30°	d 40°
0	0.9982	0.9957	0.9922
2	1.0001	.9974	.9938
4	.0020	.9990	.9953
6	.0038	1.0006	.9967
8	.0055	.0022	.9981
70	-	1.0428	1.0352
75	1.0539	.0462	.0382
80	.0576	.0496	.0413
85	.0615	.0533	.0450
90	.0655	.0572	.0488
95	-	.0617	.0432

%	d 50°	d 60°	d 75°
0	0.9881	0.9832	0.9778
2	.9894	.9845	.9788
4	.9908	.9857	.9799
6	.9921	.9868	.9808
8	.9934	.9879	.9819
10	.9944	.9889	.9829
15	-	.9913	-
20	-	-	0.9872
30	-	-	.9917
40	-	-	.9962
50	-	-	1.0009
60	-	1.0138	.0054
70	1.0273	.0191	.0105
75	.0301	.0218	.0132
80	.0331	.0248	.0161
85	.0367	.0280	.0193
90	.0405	.0319	.0232
95	.0448	.0362	.0276
100	.0499	.0413	.0325

Dervichian and Titchen, 1950 (fig.)

%	d 68.5°	d 94°
0	0.978	0.962
25	0.990	.973
50	1.003	.982
75	1.013	.994
100	1.034	1.013

Krichevskii, Khazanova and Linshits, 1955

t	d	t	d
	14.8%		
55.11	0.99423	57.26	0.99295
55.29	.99413	57.35	.99290
55.58	.99396	57.82	.99262
56.03	.99368	58.04	.99249
56.10	.99365	58.25	.99235
56.44	.99344	58.70	.99209
56.78	.99324	59.21	.99178
56.90	.99317	59.48	.99162
57.01	.99311	59.71	.99148
	15.35%		
56.26	0.99486	58.03	0.99380
56.42	.99476	58.55	.99346
56.71	.99459	58.64	.99343
56.91	.99446	58.99	.99318
56.97	.99444	59.59	.99283
57.21	.99429	59.73	.99276
57.46	.99414	60.16	.99247
57.71	.99398	60.61	.99220
57.94	.99384		
	21.20%		
62.15	0.99389	64.58	0.99224
62.73	.99351	64.64	.99219
63.13	.99325	64.92	.99202
63.32	.99310	65.29	.99176
63.74	.99282	65.70	.99148
63.94	.99269	65.77	.99144
64.12	.99257	66.06	.99124
64.52	.99228	66.11	.99121
	34.80%		
64.07	0.99818	66.61	0.99629
64.62	.99776	66.84	.99611
65.24	.99728	67.42	.99569
65.54	.99706	67.94	.99531
65.83	.99684	68.39	.99497
66.40	.99644		
	49.20%		
62.71	1.00566	64.09	1.00456
62.78	.00561	64.15	.00451
63.10	.00534	64.47	.00427
63.29	.00522	64.88	.00394
63.34	.00516	65.10	.00377
63.70	.00488	65.34	.00359
63.73	.00486	65.85	.00319
63.94	.00468	66.32	.00283
	55.15%		
58.59	1.01206	60.28	1.01072
58.82	.01188	60.39	.01061
59.20	.01157	60.47	.01056
59.38	.01143	60.70	.01037
59.62	.01125	60.98	.01017
59.64	.01123	61.24	.00997
59.70	.01118	61.25	.00996
59.79	.01111	61.61	.00968
59.81	.01109	61.79	.00955
59.89	.01103	61.86	.00950
60.14	.01086	61.88	.00949
60.22	.01079	61.92	.00944
	55.45%		
57.74	1.01292	59.95	1.01110
57.75	.01290	60.22	.01090
58.30	.01247	60.47	.01072
59.13	.01181	60.67	.01057
59.34	.01160	60.92	.01038
59.54	.01148	61.05	.01026
59.71	.01130	61.51	.00991

Goard and Pascal, 1925

t	d L_2	d L_1
0	1.9685	1.0085
17	.0537	.0060
30	.0442	.0025
40	.0332	0.9990

Hill and Malisoff, 1926

t	%	d	%	d
	L_2		L_1	
20	72.16	1.0541	8.36	1.0018
25	71.28	1.0469	8.66	1.0045 ?
30	69.90	1.0429	9.22	1.0039
35	67.63	1.0405	9.91	0.9974

Kremann, Griengl and Schreiner, 1933

%	d	%	d
	50°		
L_2		L_1	
30	1.0284	0	0.9883
45	.0284	10	.9977
55	.0284	12	.9983
60	.0284	15	.9983
62	.0284	30	.9983
63	.0291	45	.9983
64	.0296		
65	.0303		
66	.0310		
68	.0324		
70	.0336		
80	.0401		
90	.0465		
100	.0530		

Howell, 1932

t	d (sat.sol.) L_1	L_2
20	1.0056	1.0515
30	1.0028	.0423
40	0.9993	.0328
50	.9955	.0226
60	.9918	.0114
62	.9914	.0087
64	.9912	.0056
66	.9920	.0015

Viscosity and surface tension

Scarpa, 1904

%	η 67.5°	70°	75°	80°	85°
0	420	405	383	362	342
7.6	477	462	431	403	-
10.14	495	478	448	418	-
20.13	629	602	552	512	476
30.72	820	773	690	630	582
40.70	982	918	813	736	672
51.05	1100	1040	940	848	-
63.50	1160	1103	1010	926	-
69.03	1202	1146	1040	964	892
73.80	1270	1203	1102	1005	-
89.85	1664	1578	1410	1300	1192
100.00	2110	1986	1772	1571	1416

Friedländer, 1901

t	$\eta_{H_2O=1}$	t	$\eta_{H_2O=1}$	t	$\eta_{H_2O=1}$
0%		9.54%		12.04%	
35.29	0.8015	38.71	0.910	50.27	0.773
45.34	.6656	39.28	.899	50.90	.762
55.23	.5645	40.86	.866	52.00	.747
65.28	.4852	45.91	.789	56.03	.694
75.28	.4239	52.99	.692	62.25	.624
83.61	.3837	62.93	.588	69.62	.556
		80.01	.460	79.88	.481
24.17%		30.93%		36.13%	
65.22	0.820	66.18	1.024	66.17	1.159
65.78	.806	66.75	0.971	66.74	.079
66.84	.786	67.76	.928	67.89	.015
69.68	.735	70.77	.849	70.77	0.928
73.68	.684	74.79	.779	75.06	.843
80.16	.611	80.19	.700	79.96	.767
40.46%		45%		65.04%	
66.11	1.159	65.46	1.182	43.04	2.222
66.77	.119	66.07	.157	43.51	.195
67.82	.076	67.08	.124	44.71	.132
70.78	0.989	70.28	.039	49.47	1.898
74.86	.905	75.45	0.934	56.61	.613
80.07	.819	80.17	0.861	66.87	.305
				80.07	.029
99.28%					
40.63	5.319				
59.29	3.839				
60.48	2.865				
70.61	2.221				
80.62	1.788				

N.B. H_2O at 25° = 1

Scarpa, 1904

t	η	t	η	t	η
0%		7.6%		10.14%	
90.6	320	79.44	406	81.19	413
85.5	341	69.71	465	69.68	478
77.3	367	60.56	528	59.38	556
73.3	390	49.85	626	51.65	640
67.6	417	40.33	747		
65.8	428	34.23	854		
30.2	801	31.74	893		
20.13%		30.72%		40.70%	
90.16	440	89.67	543	87.42	645
77.16	534	75.20	688	75.68	798
66.42	639	70.00	773	67.25	983
		66.95	833		
51.05%		63.50%		69.03%	
80.62	839	81.59	894	87.65	854
76.22	913	71.57	1073	75.38	1035
71.19	1022	61.78	1303	65.99	1238
69.92	1037	56.49	1468		
73.80%		89.85%		100%	
80.16	1003	87.93	1132	90.00	1255
70.08	1202	73.98	1436	80.00	1571
59.63	1481	68.04	1632	70.26	1972
51.39	1784	67.46	1668	66.36	2164
39.73	2400			60.25	2537
29.69	3183			55.45	2906
22.00	4101				

Howell, 1932

%	η 20°	30°	40°	50°	60°	70°
0	1006	799.8	656.3	550.0	470.0	407.5
2	1056	834.2	681.6	569.6	485.0	419.0
4	1107	870.3	708.5	589.8	500.0	431.0
6	1160	907.1	737.0	611.0	518.8	445.0
8	1215	948.5	766.4	634.0	536.0	460.0
10	-	-	-	660.0	556.8	477.1
15	-	-	-	-	625.1	-
20	-	-	-	-	-	595.4
30	-	-	-	-	-	759.0
40	-	-	-	-	-	892.0
50	-	-	-	-	-	972.9
60	-	-	-	-	1293	1053
70	-	2972	2253	1775	1413	1157
75	4372	3153	2383	1858	1485	1215
80	4731	3393	2553	1981	1591	1298
85	5273	3742	2792	2164	1725	1405
90	6146	4288	3161	2420	1910	1547
95	-	5284	3770	2820	2180	1735
100	-	-	-	3491	2614	2028

Kremann, Griengl and Schreiner, 1933

%	η	%	η	
		50°		
0	556	42	3109	L_1+L_2
10	638	50	2203	
20	860	60	1669	
30	1394	70	1615	
37	2263	80	1725	
39	3116	90	2330	
40	3139	100	3339	

%	η	%	η
	L_2	50°	L_1
30	1552	0	548
45	1552	10	587
55	1581	12	618
60	1552	15	638
62	1581	30	638
63	1581	45	642
64	1583		
65	1587		
66	1594		
68	1605		
70	1637		
80	1873		
90	2334		
100	3335		

A.N.Campbell and A.J.R.Campbell, 1937

%	t	η(water=1)	%	t	η(water=1)
0.8	19.2	1.01	53.0	70.0	1.51
3.9	19.2	.04	58.0	70.0	.57
7.3	19.2	.14	64.4	70.0	.71
9.2	52.0	.13	69.5	51.0	.72
16.0	70.0	.16	72.8	51.0	2.97
25.0	70.0	.12	82.7	20.0	4.51
33.0	70.0	.25	89.6	20.0	6.05
33.5	70.0	.38	100.0	51.0	11.90
46.0	70.0	.45			

Dervichian and Titchen, 1950 (fig.)

%	η		
	68.5°	79.5°	94.0°
0	425	365	320
25	710	570	470
50	1000	800	660
75	1270	1000	840
100	2120	1550	1300

Whatmough, 1902

t	σ	t	σ	
	L_1		L_2	
25.1	42.58	20.0	42.45	
34.9	41.75	30.2	41.63	
45.1	40.97	40.2	40.71	
55.1	40.16	49.2	40.18	
65.0	39.33	60.0	39.47	
70.8	38.84	71.0	38.84	
24.70	42.56	20.2	42.56	
30.20	42.07	30.3	41.66	
40.10	41.26	41.2	40.76	(second
50.00	40.44	50.5	40.21	
60.20	39.54	59.1	39.51	series)
71.00	38.84	71.0	38.84	

Schükarew, 1910

%	σ		%	σ
20.93	74.78	69°	70.68	75.18
30.35	75.67		81.52	76.61
55.70	76.71		0	64.38
60.90	76.55			

Morgan and Egloff, 1916

t	σ				
	0 %	0.534 %	0.770 %	0.97 %	1.47 %
0	75.87	68.23	64.77	62.21	-
20	72.69	66.13	63.23	61.02	-
30	71.03	65.19	62.51	60.27	56.23
35	70.19	64.77	62.14	60.08	56.08
40	69.33	64.30	61.83	59.74	55.89
45	68.47	63.79	61.40	59.44	55.68
50	67.59	63.27	60.99	59.15	55.44
55	66.69	62.80	60.64	58.80	55.25
60	65.80	62.30	60.27	58.47	55.03
65	64.88	61.82	59.89	58.16	54.78
	3.48 %	4.53 %	8.74 %	58.6 %	65.45 %
30	46.11	43.14	-	-	-
35	46.00	43.07	37.22	-	-
40	45.91	42.95	37.09	-	-
45	45.85	42.82	36.89	-	-
50	45.76	42.67	36.72	-	36.23
55	45.65	42.54	36.53	-	35.93
60	45.57	42.36	36.35	35.25	35.55
65	45.48	42.28	36.11	34.96	35.23

t	70.40 %	74.00 %	76.60 %	100 %
0	-	-	-	41.70
20	-	-	-	39.59
30	38.09	38.22	38.29	38.54
35	37.72	37.83	37.89	38.02
40	37.33	37.41	37.50	37.49
45	36.96	36.99	37.08	36.96
50	36.53	36.59	36.65	36.44
55	36.15	36.19	36.24	35.91
60	35.74	35.77	35.83	35.38
65	35.36	35.38	35.44	34.86

Morgan and Evans, 1917

t	%	σ	%	σ
	L_2		L_1	
15	-	39.402	-	39.201
20	72.24	39.003	8.110	38.851
25	71.38	38.580	8.71	38.485
30	69.95	38.172	8.92	38.104
35	68.28	37.761	9.34	37.711
40	66.81	37.322	9.78	37.330
45	65.02	36.945	10.62	36.949
50	62.13	36.545	12.08	36.510
55	60.18	36.107	13.88	36.187
60	56.10	35.703	-	-

t	σ	t	σ
	0 %		
25	39.07	40	37.49
30	38.54	45	36.96
35	38.01		
	4.68 %		
25	39.16	35	38.15
30	38.65	45	37.13
1.77 %		13.76 %	
45	37.03	45	37.16
	16.14 %		
30	38.51	45	37.14
	23.4 %		
30	38.29	40	37.50
35	37.89	45	37.08
	37.13 %		
30	38.22	40	37.41
35	37.83	45	36.99
	37.16 %		
30	38.09	40	37.33
35	37.72	45	36.96

Goard and Pascal, 1925

t	σ L_1	σ L_2
0	41.81	41.48
17	40.45	40.19
30	39.50	39.30
40	38.91	38.75

A.N.Campbell and A.J.R.Campbell, 1937

%	t	σ water=1	σ phenol=1
0.8	20.6	0.82	1.66
3.9	18.9	.608	.22
7.3	20.9	.545	.11
9.3	54.9	.56	.05
16.0	73.1	.59	.11
33.0	70.7	.555	.05
33.5	75.5	.53	.08
46.0	74.0	.494	.03
53.0	63.0	.53	.02
58.0	56.0	.55	.04
64.4	64.0	.55	.04
72.8	42.0	.55	.05
87.7	51.0	.54	.02
89.6	49.0	.54	.04
98.6	49.0	.54	.01

Antonoff, Hecht and Chanin, 1941

Change of interfacial tension with time
(see authors)

Krichevskii, Khazanova and Linshits, 1954

% L_2	% L_1	diffusion (mg/h)
11.35	0.0	0.097
23.9	10.7	.061
35.5	24.5	.007
41.8	31.1	.000

Optical and electrical properties

A.N. Campbell and A.J.R. Campbell, 1937

%	$n_{H\alpha}$ 7°	22.5°	25.0°	30°
0.905	1.336	1.3328	1.3326	1.33215
3.85	.3396	.3389	.3387	.3387
6.95	-	.3466	.3461	.3456
75.2	1.4895	1.4843	1.4829	1.4814
82.0	.5090	.5051	.5038	.5024
90.0	-	.5235	.5225	.5212

%	35°	45°	55°
0.905	1.3321	1.3311	1.3288
3.85	.3376	.3376	.3350
6.95	.3456	.3447	.3417
9.65	-	.3510	.3465
56.0	-	-	.4370
63.6	-	.4545	.4540
68.5	1.4713	.4679	.4648
75.2	.4814	.4815	.4774
82.0	.5014	.4977	.4955
90.0	.5197	.5149	.5149
97.5	-	.5323	.5313

%	60°	65°	70°
0.905	1.3288	1.3274	1.3262
3.85	.3339	.3328	.3321
6.95	.3405	.3400	.3389
9.65	.3465	.3464	.3402
14.68	.3580	.3570	.3570
24.10	-	.3725	.3646
32.50	-	-	.3890
42.30	-	-	.4114
49.65	-	-	.4225
51.5	1.4365	1.4265	.4265
56.0	.4506	.4355	.4345
63.5	.4616	.4493	.4486
68.5	.4708	.4612	.4601
75.2	.4921	.4695	.4689
82.0	.5091	.4910	.4895
90.0	.5277	.5084	.5062
97.5		.5245	.5223

Perkin, 1896

%	(α) magn. 15.5°
16.07	2.2394
100	2.4688

Howell and Handford, 1933

%	κ 20°	30°	40°
0	0.00508	0.00628	0.00752
2.00	.01879	.02492	.03169
3.97	.02427	.03230	.04133
6.01	.02731	.03635	.04655
8.01	.02929	.03893	.04978
66.15	-	-	.00790
69.02	-	-	.00657
70.11	-	0.00472	.00615
75.08	0.00240	.00327	.00422
80.30	.00164	.00221	.00285
80.80	.00157	.00213	.00274
84.84	.00118	.00163	.00211
88.63	.000919	.00126	.00162
94.75	.000532	.000757	.000995

%	50°	60°	70°
0	0.00892	0.0104	0.0119
2.00	.0393	.0474	.0552
3.97	.0511	.0616	.0725
6.01	.0575	.0695	.0816
8.01	.0616	.0743	.0873
10.08	.0636	.0767	.0902
15.36	-	.0787	.0923
20.01	-	-	.0899
30.19	-	-	.0745
39.88	-	-	.0555
50.14	-	-	.0363
50.18	-	-	.0363
60.06	-	0.0182	.0217
60.23	-	.0182	.0215
65.16	0.0108	.0131	.0155
66.15	.00995	.0121	.0144
69.02	.00824	.0100	.0118
70.11	.00766	.00924	.01091
75.08	.00525	.00634	.00749
80.30	.00354	.00431	.00508
80.80	.00341	.00415	.00489
84.84	.00262	.00318	.00377
88.63	.00203	.00247	.00292
94.75	.00126	.00150	.00176
100.00	.000493	.000564	.000647

Pestemer and Platten, 1933

%	κ L_1	L_2	%	κ L_1	L_2
	50°				
0	0.159	-	55	-	0.266
5	.419	-	62	-	.408
12	.836	-	70	-	.366
30	1.107	0.463	90	-	.177
45	2.065	0.200			

Trifonov, Ust-kachkintsev and Teitelbaum, 1947

mol%	κ 25°	75°	90°
0.3	0.102	0.310	0.385
1.5	.122	.388	.526
3.0	-	.270	.366
5.0	-	.211	.284
10.0	-	.163	.224
20.0	-	.117	.168
30.0	-	.092	.136
35.0	0.036	.078	.118
40.0	.029	.068	.102
50.0	.022	.052	.079
60.0	.016	.036	.055
70.0	.011	.026	.039
80.0	-	.017	.025
100.0	-	.004	-

Howell and Jackson, 1934

wt%	mol%	ε	wt%	mol%	ε
		70°			
40.00	11.32	27.67	75.00	36.49	18.23
44.91	13.50	26.72	80.01	43.39	16.36
50.01	16.08	25.13	85.00	52.04	14.41
55.00	18.97	23.67	89.62	62.31	12.81
59.99	22.31	22.64	94.98	78.37	10.94
65.00	26.23	21.37	100.00	100.00	9.03
69.99	30.87	19.94			

Krischnan, 1935 and 1937

Molecular clustering

t	p_h*	p_v	p_u
	34%		
69	12	0.07	0.62
69.5	16	.12	.62
71	26	.19	.70
74	31	.23	.75
77	39	.27	.77
80	47	.34	.93
83	41	.43	1.1
87.5	51	.60	1.4
90	66	.70	1.5
95	77	1.00	2.2

*p_h - horizontal polarisation

p_v - vertical polarisation

p_u - unpolarised light

Heat constants

Alexeev, 1886

%	U
100	0.523
74.07	0.6735
6.30	1.0085

Ferguson, 1927

%	U	%	U
	70 - 74°		
0.00	1.001	60.02	.7597
20.04	0.9350	60.02	.7633
20.04	.9396	79.90	.6545
40.15	.8640	100.00	.5486
40.15	.8648	100.00	.5487

Amirkhanov, Gurvich and Matisen, 1955 (fig.)

t	U	t	U	
	34%			
61	0.845	65.8	0.920	C.S.T.
62	.845	66	.875	
63	.855	67	.873	
64	.875	68	.872	
65	.895	69	.871	

Alexeev, 1886

%	Q mix
96.9	-40
80.8	-347
48.15	-408.8
16.4	-97

Ferguson and Hope, 1924

61% Q mix (maximum) -5.0 cal/gr.

Ferguson, 1927

%	Q mix cal/gr.	%	Q mix cal/gr.
	71°		
5.17	-1.012	47.28	-4.499
9.73	.794	52.70	.706
10.23	.867	58.37	.850
19.75	2.818	64.78	.836
28.06	3.420	72.85	.643
35.57	3.898	80.95	3.934
41.86	-4.240	90.10	-2.478

Water + o-Cresol (C_7H_8O)

Brusset and Gaynes, 1953

b.t.	wt% L	wt% V	mol% L	mol% V	
100	0	0	0	0	
99.8	0.50	1.90	0.1	0.35	
99.7	0.67	2.75	0.2	0.60	
99.4	3.99	10.90	0.69	2.02	
99.07	4.99	11.97	0.87	2.22	
99.07	11.97	11.97	2.12	2.22	L_1+L_2+V
99.07	80.08	11.97	40.02	2.22	
102.5	87.50	17.50	65.22	3.41	
113.0	97.50	35.90	86.80	8.52	
140.0	99.85	75.90	99.10	34.30	
170.5	99.93	89.50	99.62	58.20	
191.0	100.00	100.00	100.00	100.00	

Michels and ten Haaf, 1926

%	sat.t.	%	sat.t.
2.9	46.2	45.9	168.3
4.0	86.7	50.4	167.9
4.5	104.5	56.5	163.7
6.9	121.0	64.7	160.1
7.0	123.0	74.8	139.2
8.7	134.0	75.9	135.4
16.4	157.9	82.9	92.8
17.5	159.6	84.1	87.3
36.4	167.3	86.2	50.5
42.6	168.9		

von Szelenyi, 1929

%	sat.t.	%	sat.t.
4.90	106.4	19.81	164.6
5.00	110.0	29.65	168.9
5.50	120.0	35.51	166.25
6.10	130.0	48.58	169.15
7.30	140.0	58.50	160.0
7.70	141.75	60.33	164.85
9.35	150.0	67.70	152.3
10.93	155.35	75.74	130.25
19.5	160.0		

C.S.T. 169.7 39.5%

Sidgwick, Spurrell and Davies, 1915

%	sat.t.	%	sat.t.	
3.01	35.3	82.37	87.5	
3.22	50.2	84.58	56.6	
3.47	61.7	85.69	33.6	L_1+L_2
3.75	70.6	86.14	25.6	
4.10	77.7	87.52	8.3	f.t.
4.51	84.6	88.68	9.1	"
6.52	130.6	89.89	10.2	"
10.46	148.7	90.85	11.1	"
19.36	158.7	92.62	12.9	"
30.06	161.7	94.08	15.3	"
40.89	162.8	97.46	22.3	"
50.14	160.0	99.01	26.9	"
59.80	157.7	100.00	29.9	"
69.30	145.7			
76.14	129.6			

C.S.T. = 162.8

2.5 % and 87 % 8° $L_1 + L_2 + C$

Water + m-Cresol (C_7H_8O)

Sidgwick, Spurrell and Davies, 1915

%	sat.t.	%	sat.t.	
2.24	-0.2	61.27	140.5	
2.36	+24.7	70.32	124.8	
2.66	47.0	75.40	109.3	L_1+L_2
3.03	61.9	80.46	82.8	
3.54	74.5	82.60	67.7	
4.24	87.5	83.70	57.1	
6.59	116.9	84.79	46.5	
11.99	139.4	85.85	34.5	
32.40	146.9	87.05	20.3	
35.07	147.0	87.58	13.2	
41.06	146.6			

C.S.T. = 147.0

Michels and ten Haaf, 1926

%	sat.t.	%	sat.t.
2.7	50.8	62.2	137.7
3.6	78.7	65.9	133.2
4.5	92.2	70.6	124.4
10.8	121.7	73.1	120.0
14.0	140.4	76.7	103.0
23.2	147.5	79.7	90.2
29.7	148.7	80.0	85.2
42.9	148.7	80.7	82.6
48.9	147.6	82.6	67.9
58.0	141.2	85.9	36.2
59.3	141.9		

Water + p-Cresol (C_7H_8O)

Michels and ten Haaf, 1926

%	sat.t.	%	sat.t.
2.21	29 - 30	43.7	140.7
3.74	82.1	50.2	139.5
5.40	105.0	56.9	136.6
6.90	118.5	66.6	124.4
9.20	127.9	71.3	110.8
16.40	138.0	79.5	71.0
32.10	142.6	81.3	59.5
32.30	142.5	83.7	37.1

Sidgwick, Spurrell and Davies, 1915

%	sat.t.	%	sat.t.	
2.24	40.2	71.91	111.6	
2.49	52.6	79.40	77.9	$L_1 + L_2$
2.80	63.5	83.61	37.4	
3.19	73.5	84.48	27.5	
3.72	84.0	85.28	17.2	
4.06	88.8	86.86	8.7	
4.47	94.0	87.90	9.2	
7.42	124.5	90.09	10.8	
15.10	139.4	94.68	17.1	
20.07	141.2	96.01	20.3	
30.13	143.5	97.27	24.0	
40.08	143.4	98.32	27.5	
50.63	141.5	99.06	29.9	
60.61	134.8	100.00	33.8	

C.S.T. = 143.5

20 % and 86 % 8.7°

Perkin, 1896

%	d 15°	d 20°	d 25°
0	0.9991	0.9982	0.9971
14.28	1.0381	1.0344	1.0306
100	1.0312	1.0277	1.0239

$(\alpha)^{mol}_{magn.}$ = 12.768 15° 14.28 %

Water + Resorcinol ($C_6H_6O_2$)

Speranski, 1909 and 1910

t	p	t	p
	sat.sol.		
20.80	15.97	31.17	27.54
23.17	18.17	35.12	33.19
25.10	20.16	38.10	38.20
28.16	23.62	40.33	42.18

Boswell and Cantelo, 1922

N	p
23°	
5.000	19.39
4.000	19.81
3.000	20.31
2.000	20.80

Shakparonov and Martinova, 1953

mol%	d vapour mg/cc³	p	mol%	d vapour mg/cc³	p
	20°			25°	
0	0.01728	17.53	0	0.02300	23.73
2	.01691	17.17	2	.02258	23.27
9.80	.01601	16.26	7.47	.02188	22.59
10	.01570	15.92	9.80	.02140	22.05
11.58	.01583 ?	16.07	10	.02124	21.95
16.50	.01539	15.61	11.58	.02089	21.56
			16.60	.02039	21.01

Speyers, 1902

mol%	f.t.	mol%	f.t.
9.78	0.0	36.74	55.8
13.27	10.0	50.91	79.8
23.67	34.6		

Mortimer, 1923

mol%	f.t.	mol%	f.t.
9.8	0	58.8	80
16.6	20	83.3	100
26.8	40	100.0	110.2
40.4	60		

Walker, Collett and Lazzell, 1931

mol%	f.t.	mol%	f.t.
100.00	109.4	37.80	50.4
72.15	88.5	36.76	49.3
63.28	80.5	33.18	44.5
53.95	70.7	26.35	33.61
48.62	64.4		

Cohen-Adad, 1949

%	f.t.	%	f.t.	
10.00	-1.48	35.40	-5.32	E
20.00	-2.95	37.00	-5.78	
30.00	-4.48	37.00	-3.62	
		100.00	+109.50	

Perkin, 1896

mol%	d 15°	d 25°
0.00	0.9991	0.9971
6.64	1.0653	1.0619
22.22	1.1038	1.0992

Traube, 1896

%	d	%	d
	15°		
0.6342	1.00047	6.237	1.01210
1.873	.00302	15.147	.03138
3.216	.00589	23.036	.04892

Speyers, 1902

t	d	t	d
	sat.sol.		
0.0	1.101	45.2	1.149
14.4	.124	63.4	.152
31.1	.144	85.4	.141

Harkins and Grafton, 1925

N	d	N	d
	20°		
0.03	0.9986	0.75	1.0146
.05	0.9995	1.0	.0203
.10	1.0007	1.5	.0317
.15	.0016	2.0	.0408
.20	.0025	3.0	.0648
.30	.0050	4.0	.0872
.40	.0068	5.0	.1101
.50	.0093	6.0	.1316
.60	.0116		

Gibson, 1935

%	d	%	d
	25°		
0.00	0.99707	29.97	1.06022
5.18	1.00731	40.00	.08334
10.92	.01901	50.34	.10835
20.00	.03823		

Harkins and Grafton, 1925

N	σ	N	σ
	20°		
0.03	72.15	0.75	64.36
.05	71.39	1.0	63.41
.10	70.62	1.5	61.14
.15	69.62	2.0	60.46
.20	68.84	3.0	58.63
.30	67.74	4.0	58.16
.40	66.80	5.0	57.57
.50	66.24	6.0	57.06
.60	65.44		

Gibson, 1935

%	π	%	π
	25°		
0.00	39.35	29.97	35.14
5.18	38.63	40.00	33.95
10.92	37.79	50.34	32.69
20.00	36.49		

Perkin, 1896

mol%	t	$(\alpha)_{magn.}$
6.64	15	1.3729
22.22	16	1.8621

Water + Hydroquinone ($C_6H_6O_2$)

Walker, Collett and Lazzell, 1931

mol%	f.t.	mol%	f.t.
10.25	75.3	49.11	131.7
13.55	81.9	52.95	136.0
35.29	114.6	60.35	141.8
39.24	120.3	65.18	147.2
		100.00	172.9

Water + Pyrocatechol ($C_6H_6O_2$)

Walker, Collett and Lazzell, 1931

mol %	f.t.	mol %	f.t.
23.01	41.2	47.11	66.2
37.10	56.7	100.00	104.5
37.23	57.1		

Traube, 1896

%	d	%	d
	15°		
0	0.99913	4.663	1.00960
0.8718	1.00115	17.181	1.03870
1.863	1.00330	24.183	1.05515

Perkin, 1896

%	d 15°	d 25°
0	0.9991	0.9971
20	1.0450	1.0418

Harkins and Grafton, 1925

N	d	N	d
	20°		
0.03	0.9986	0.50	1.0101
.05	0.9995	0.60	.0127
.10	1.0007	0.75	.0163
.20	.0031	1.0	.0222
.30	.0053	2.0	.0454
.40	.0078		

N	σ	N	σ
	20°		
0.03	72.08	0.50	60.78
.05	71.66	0.60	59.67
.10	69.72	0.75	57.75
.20	66.83	1.0	55.74
.30	66.44	2.0	51.56
.40	62.42		

Perkin, 1896

%		(α)magn.
0	15°	1
20		1.2691

Water + Pyrogallol ($C_6H_6O_3$)

Boswell and Cantelo, 1922

N		p
3.500	23°	19.75
3.000		19.93
2.000		20.44

Traube, 1896

%	d	%	d
	15°		
0	0.99913	5.610	1.01713
1.051	1.00259	10.453	.03225
3.013	1.00881	19.316	.06240

Harkins and Grafton, 1925

N	d	N	d
	20°		
0.1	1.0022	0.75	1.0252
.2	.0058	1.00	.0359
.3	.0100	1.50	.0546
.5	.0177	2.00	.0733
.6	.0208		

N	σ	N	σ
	20°		
0.1	71.71	0.75	62.37
.2	70.38	1.00	60.00
.3	68.24	1.50	56.10
.5	65.74	2.00	53.80
.6	64.87		

Perkin, 1896

%	d 15°	d 25°
0	0.9991	0.9971
31.053	1.1038	1.0992

%		(α)magn.
0	16°	1
31.053		1.3824

Water + o-Hydroxybenzaldehyde ($C_7H_6O_2$)

Sidgwick and Allott, 1923

%	sat.t.	%	sat.t.
1.68	85.8	90.56	146.3
3.59	136.5	93.20	117.3
5.34	154.0	97.13	67.4

Water + m-Hydroxybenzaldehyde ($C_7H_6O_2$)

Sidgwick and Allott, 1923

%	f.t.	%	sat.t.
2.73	43.0	19.2	63.5
9.38	57.8	29.2	66.0
11.00	58.9	31.9	66.1
65.10	60.4	40.1	66.2
83.30	71.2	43.94	65.6
89.00	81.1	53.9	62.4
100.00	100.0		

L_1+L_2+ Aldehyde (fig.) 60% 60°

L_1+L_2+ Ice 12%

C.S.T. 66.1°

Water + p-Hydroxybenzaldehyde ($C_7H_6O_2$)

Sidgwick and Allott, 1923

%	f.t.	%	sat.t.
1.33	30.5	13.2	52.8
4.34	52.0	20.7	60.5
8.32	59.2	26.6	62.4
13.2	61.9	49.8	61.8
20.7	62.6		
26.6	62.8		
42.2	63.8		
49.8	63.0		
60.0	64.1		
76.6	69.3		
88.8	83.0		
100.0	116.0		

L_1+L_2+ Aldehyde 46.2% 62.8°

L_1+L_2+Ice 27.4% 64.4°

C.S.T. 64.4°

Water + 1-2-5-Hydroxytolualdehyde ($C_8H_8O_2$)

Sidgwick and Allott, 1923

%	sat.t.
2.52	99.1
5.47	156.5
92.73	137.1
96.09	87.7

Water + 1,4,6-Hydroxytolualdehyde ($C_8H_8O_2$)

Sidgwick and Allott, 1923

%	f.t.	%	sat.t.
5.78	56.8	7.95	85.8
51.0	69.2	14.3	116.3
59.5	69.4	34.0	125.0
69.5	69.9	44.6	124.5
82.7	75.9	48.5	121.1
100.0	108.9	50.3	78.8

L_1+L_2+ Aldehyde 50.6% 69.1°

L_1+L_2+ Ice 6.9% 69.1°

C.S.T. = 125°

Water + 1,4,5-Hydroxytolualdehyde ($C_8H_8O_2$)

Sidgwick and Allott, 1923

%	f.t.	%	sat.t.
1.69	67.3	1.69	55.9
5.45	99.3		
16.5	127.0		
23.5	133.5		
35.4	136.8		
52.5	127.0		
56.0	87.2		
59.9	79.6		
73.3	80.3		
86.8	91.2		
100.0	117.4		

L_1+L_2 + Aldehyde 56.0% 79.5°

L_1+L_2+ Ice 13.0% 79.5°

C.S.T. = 136.8°

Water + Thymol ($C_{10}H_{14}O$)

Wilcox and Bailey, 1929

%	f.t.	%	f.t.	
0.0	0.0	70.2-20.1	270.0	C.S.T.
0.04	-0.05 E	95.4	40.0	$L_1 + L_2 + C$
0.10	+40.0	100.0	50.0	

Water + α-Naphthol($C_{10}H_8O$)

Mukhin and Chelenko, 1931

%	f.t.	sat.t.	%	f.t.	sat.t.
0.38	54.0	-	45.03	73.0	209.3
0.51	61.0	-	48.35	73.0	209.0
1.03	65.5	-	54.55	73.0	206.7
1.20	68.0	-	59.20	72.7	205.0
1.71	70.0	110.0	64.01	73.0	200.0
3.21	71.0	130.0	67.90	73.0	191.0
5.50	72.0	165.5	74.95	73.0	175.3
7.05	72.0	175.0	80.03	73.0	160.7
10.01	72.5	188.0	84.51	73.5	140.5
14.53	73.0	198.3	88.59	75.0	80.0
19.98	72.5	204.0	94.00	79.0	-
24.02	73.0	207.0	97.41	88.0	-
31.10	73.3	209.7	100.00	94.0	-
36.52	73.0	210.5			

C.S.T. 210.5°

Water +β -Naphthol ($C_{10}H_8O$)

Mukhin and Chelenko, 1931

%	f.t.	sat.t.	%	f.t.	sat.t.
0.35	63.8	-	39.96	91.4	191.2
0.89	85.3	127.0	50.50	91.4	191.6
1.67	87.9	129.0	57.50	91.45	189.5
5.00	90.0	159.5	62.75	91.4	186.0
6.50	91.0	167.0	72.12	91.55	170.5
7.68	91.1	172.0	83.01	91.5	135.5
10.03	91.2	179.0	86.10	91.55	108.7
15.01	91.3	184.8	90.02	94.8	-
21.07	91.3	189.0	94.48	102.5	-
24.24	91.3	190.2	96.51	110.2	-
30.50	91.3	191.0	100.00	122.5	-
35.29	91.3	191.8			

C.S.T. 192.0°

Water + o-Chlorphenol (C_6H_5OCl)

Sidgwick and Turner, 1922

%	f.t.	%	sat.t.
1.56	-0.20	5.12	+106.3
2.44	-3.30	13.58	159.1
3.76	+82.9	16.95	165.8
87.73	-2.0	22.59	170.7
89.25	-4.0	33.00	173.0
89.62	-5.0	45.04	172.9
90.87	-8.0	54.95	170.1
92.20	-8.2	60.72	166.2
93.93	-6.0	70.62	156.6
96.79	-1.5	82.82	118.9
98.39	+2.0	85.90	+91.5
100.00	+7.0		

C.S.T. : 129.0° L_1+L_2+Phenol : 86.5% -0.3°

Water + m-Chlorphenol (C_6H_5OCl)

Sidgwick and Turner, 1922

%	f.t.	%	sat.t.
0.75	-0.18	1.25	+1.2
84.87	+3.2 *	1.85	2.5
84.87	-0.9	5.12	85.25
87.19	+4.5	11.13	118.0
88.66	-4.8 *	13.56	123.0
90.11	-8.2 *	17.84	127.5
91.73	-13.2 *	32.02	130.8
92.23	+10.8	38.89	130.7
92.23	-17.0 *	46.12	130.5
95.10	+17.0	55.65	129.1
97.11	+22.2	71.23	109.8
100.00	+32.5	82.30	23.1
		82.90	11.8

C.S.T. = 130.8° L_1+L_2+Ice : 83.4% -0.4°

*-metastable L_1+L_2+Phenol : 82.3% +3.2°

Water + p-Chlorphenol (C_6H_5OCl)

Sidgwick and Turner, 1922

%	f.t.	%	sat.t.
2.07	-0.2	3.91	+65.0
88.92	+0.5	10.66	113.8
92.48	6.2	20.50	125.0
94.48	11.0	29.16	128.2
95.70	14.2	42.57	128.7
96.82	18.0	53.49	125.8
97.29	19.5	59.62	122.4
100.00	41.0	65.05	115.15
		69.36	107.7
		74.03	97.0
		84.02	35.5
		85.42	17.0
		86.19	5.5

C.S.T. = 173°

E : 91.2% -9.3°

L_1+L_2+Ice : 86.5% 0.3°

Water + o-Aminophenol (C_6H_7ON)

Sidgwick and Callow, 1924

%	f.t.	%	f.t.	%	f.t.
1.7	0	17.93	116.7	59.73	131.7
3.02	80.8	25.08	120.9	69.61	135.8
4.04	88.0	31.96	123.8	80.46	143.0
7.10	100.2	40.03	126.2	90.48	155.6
9.98	107.1	50.17	128.6	100.00	177.0

Water + m-Aminophenol (C_6H_7ON)

Sidgwick and Callow, 1929

%	f.t.	%	sat.t.	
2.6	20	18.13	-7	
3.69	32.6	20.16	-4.6	
8.0	47.9	25.47	-2.0	
10.69	53.0	30.62	+0.3	
18.13	60.4	40.18	+1.3	
30.62	66.4	46.93	+1.9	C.S.T.
40.18	68.9	52.67	+1.7	
46.93	70.2	59.27	+0.2	
52.67	71.5			
59.27	73.2			
68.87	77.2			
80.89	85.2			
88.84	96.0			
100.00	122.1			

C.S.T. = +1.9° L_1+L_2+Ice = -4°

Water + p-Aminophenol (C_6H_7ON)

Sidgwick and Callow, 1924

%	f.t.	%	f.t.
1.1	0	50.79	106.5
3.01	59.0	59.45	110.1
6.44	77.0	69.95	116.5
10.09	86.7	79.93	128.0
19.53	96.6	89.48	145.8
33.42	102.0	100.00	186.0
40.34	103.7		

Water + Salicylamide ($C_7H_7NO_2$)

Meldrum and Turner, 1908

%	b.t.
8.81	100.210
9.64	100.235
12.20	100.270
13.90	100.290

Water + o-Nitrophenol ($C_6H_5NO_3$)

Sidgwick, Spurrell and Davies, 1915

%	f.t.	%	sat.t.
0.321	38.4	0.376	47.5
0.346	42.8	.455	59.4
99.51	43.6	.513	65.7
100.00	44.9	.589	72.8
		.690	80.3
		.833	88.9
		1.343	109.9
		3.03	151.8
		5.04	169.5
		9.90	196.5
		90.68	196.5
		95.14	63.4
		98.48	91.7
		98.73	82.9
		99.24	59.3

L_1+L_2+Phenol : 99.48% 43.5°

L_1+L_2+Ice : 0.35% 43.5°

C.S.T. above 200°

Water + m-Nitrophenol ($C_6H_5NO_3$)

Bogoyavlenskii, Bogolyubov and Vinogradov, 1908

%	f.t.	%	sat.t.
1.9	32.9	4.5	55.9
74.1	43.8	7.2	73.5
76.3	44.5	10.8	85.6
81.4	48.8	20.2	95.7
90.2	64.4	30.2	97.2
100.0	95.2	40.6	97.3
		51.2	95.5
		63.9	81.7
		70.4	56.5
		72.3	49.2

Sidgwick, Spurrell and Davies, 1925

%	f.t.	%	sat.t.
3.03	40.4	3.65	49.5
75.89	42.3	4.66	61.1
79.32	43.9	5.42	67.1
89.90	52.0	7.64	79.1
100.00	95.1	9.47	85.1
		10.94	88.5
		13.92	93.2
		18.85	97.1
		21.55	98.0
		29.10	98.5
		35.13	98.5
		38.84	98.6
		40.94	98.7
		43.12	98.5
		48.12	97.9
		53.95	94.5
		57.19	91.9
		60.74	87.3
		63.47	82.6
		67.38	72.7
		71.56	55.8

L_1+L_2+Phenol : 74.0% 41.5° C.S.T. : 98.7°

L_1+L_2+Ice : 3.16% 41.5°

Water + p-Nitrophenol ($C_6H_5NO_3$)

Timmermans, 1907

%	sat.t.	%	sat.t.
7.61	67.6	37.24	90.3
11.71	80.4	42.25	90.0
16.84	87.5	50.41	88.2
33.80	90.0	60.82	76.4

Timmermans and Kohnstamm, 1910

C.S.T. : 94.3° dt/dp (1-120kg/cm²) = +0.01

Bogoyavlenskii, Bogolyubov and Vinogradov, 1908

%	f.t.	%	sat.t.
1.9	31.5	3.8	49.4
72.6	40.2	6.4	64.8
78.2	44.3	10.7	79.1
81.8	51.3	20.2	89.6
88.5	67.4	32.5	91.8
100.0	111.4	40.6	92.3
		49.9	90.0
		56.1	85.7
		61.1	78.6
		70.1	45.0

Sidgwick, Spurrell and Davies, 1915

%	f.t.	%	sat.t.
2.91	34.8	3.34	40.4
3.11	37.2	3.93	47.7
		4.30	51.2
72.10	40.4	5.33	59.1
74.18	41.9	6.99	67.8
85.55	43.6	8.28	72.6
77.95	46.7	10.61	79.3
81.50	52.8	13.70	84.4
85.47	63.1	17.53	87.9
88.38	70.9	21.58	90.2
91.14	79.9	26.16	91.3
94.37	91.5	30.41	92.3
98.21	106.0	33.19	92.8
100.00	113.8	36.46	92.6
		40.45	92.0
		45.40	91.0
		51.75	89.0
		60.16	80.2

C.S.T. : 92.8° L_1+L_2+Phenol : 71.2% 39.6°

L_1+L_2+Ice : 3.26% 39.6°

Water + 2,3-Dinitrophenol ($C_6H_4N_2O_5$)

Sidgwick and Aldous, 1921

%	f.t.	%	sat.t.
74.32	96.0	6.74	94.5
89.85	112.3	10.90	108.2
100.00	145.1	20.83	120.1
		35.13	122.2
		52.15	120.4
		60.44	116.7

C.S.T. = 122.5 $L_1 + L_2 + C = 95.0$

Water + 2,4-Dinitrophenol($C_6H_4N_2O_5$)

Sidgwick and Aldous, 1921

%	f.t.	%	sat.t.	%	sat.t.
99.02	108.1	86.36	187.7	1.95	109.6
100.00	112.9	93.85	156.0	2.98	126.1
		97.14	131.2	3.81	137.7
$L_1 + L_2 + C = 104.2$		97.70	121.7	8.99	170.5
		98.24	117.6	12.98	182.5
		-	100.5		

C.S.T. - above 200°

Efremov, 1940

%	f.t.		%	sat.t.	%	sat.t.
			L_1		L_2	
54.5	0.137					
75.8	0.301		2.62	122.2	94.02	174.6
87.4	0.587		3.92	139.3	95.10	158.2
96.2	1.22		6.02	157.3	96.0	138.0
105.5	2.4	L_1+L_2+C	8.03	169.3	96.54	111.8
105.5	97.0	"				
107.6	98.1					
111.4	100.0					

Water + 2,5-Dinitrophenol ($C_6H_4N_2O_5$)

Sidgwick and Aldous, 1921

%	f.t.	%	sat.t.	%	sat.t.
		L_1		L_2	
97.50	98.0	91.73	172.2	2.33	124.7
98.48	100.0	94.51	146.4	2.97	135.8
100.00	105.6	96.72	113.5	3.91	146.4
		-	92.4	5.69	162.1
				12.24	194.5

C.S.T. - above 200° $L_1+L_2+C = 97.5°$

Water + 2,6-Dinitrophenol ($C_6H_4N_2O_5$)

Sidgwick and Aldous, 1921

%	f.t.	%	sat.t.	%	sat.t.
		L_1		L_2	
99.11	59.5	93.44	158.0	0.703	71.1
100	62.2	95.96	138.3	1.00	89.5
		97.80	102.6	1.87	117.6
		98.42	84.5	3.24	133.7
				3.97	147.9
				12.26	192.5

C.S.T. - above 200° $L_1+L_2+C = 59.2°$

Water + 3,4-Dinitrophenol ($C_6H_4N_2O_5$)

Sidgwick and Aldous, 1921

%	f.t.	%	sat.t.
89.48	84.5	6.05	82.0
100	134.7	12.79	97.5
		23.28	104.6
		36.65	105.2
		55.40	101.6
		70.23	73.8
		-	48.0
		74.91	53.0

C.S.T. = 105.2° $L_1+L_2+C = 52.5°$

Water + 3,5-Dinitrophenol ($C_6H_4N_2O_5$)

Sidgwick and Taylor, 1922

%	f.t.	%	sat.t.
77.61	54.1	1.36	51.6
79.57	54.5	3.23	70.4
81.70	55.5	10.83	103.3
83.64	57.9	29.98	124.6
86.31	61.9	57.66	121.5
90.71	69.9	69.66	97.6
93.00	81.3		
96.08	100.5		
100.00	126.1	C.S.T.= 125°	L_1+L_2+C= 54.1°

Water + 2-Nitroresorcinol ($C_6H_5NO_4$)

Efremov, 1940

%	f.t.		%	sat.t.	%	sat.t.
			L_1		L_2	
0.131	28.4		1.91	82.9	95.11	128.4
0.567	54.9		2.43	92.3	95.50	115.9
0.983	67.2		3.32	108.6	96.20	100.0
1.83	78.9	L_1+L_2+C	4.02	118.6		
96.90	78.9	"	5.09	132.7		
97.52	81.1					
98.63	83.4					
100.00	84.8		C.S.T.	32.70%		74.4°

Water + 4-Nitroresorcinol ($C_6H_5NO_4$)

Efremov, 1940

%	f.t.		%	sat.t.	%	sat.t.
			L_1		L_2	
0.68	18.3		10.17	62.7	40.02	73.3
2.32	47.5		15.12	68.4	49.67	69.8
4.50	52.3		23.07	72.9	54.14	66.7
6.40	54.4	L_1+L_2+C	32.70	74.4	58.87	60.1
62.00	54.4				60.45	57.0
69.57	58.7					
84.10	70.2					
94.27	96.5					
100.00	112.2					

Water + 2,4-Dinitroresorcinol ($C_6H_4N_2O_6$)

Efremov, 1940

%	f.t.		%	sat.t.	%	sat.t
			L_1		L_2	
0.63	57.7		10.05	111.7	50.0	164.1
1.51	69.5		14.38	140.5	60.18	151.5
5.00	90.0		20.02	160.8	65.11	130.3
8.70	95.1	L_1+L_2+C	30.10	166.6	70.08	102.9
71.80	95.1	"	37.70	167.0		
82.63	100.3		C.S.T.			
89.18	107.7					
94.97	122.7					
100.00	142.0					

Water + 3-Nitropyrocatechole ($C_6H_5NO_4$)

Efremov, 1940

%		f.t.
0.841		14.4
2.02		35.1
3.82		45.8
5.00	L_1+L_2+Ice	49.9
79.00	$L_1+L_2+C_6H_5NO_4$	49.9
84.29		54.9
97.51		75.7
100.00		85.0

%		sat.t.	%	sat.t.
L_1			L_2	
5.94		61.3	51.13	102.8
9.76		86.8	67.51	90.8
19.00		101.3	74.89	68.3
30.11		105.3	77.78	55.3
39.90	C.S.T.	105.3		

Water + 4-Nitropyrocatechole ($C_6H_5NO_4$)

Efremov, 1940

%		f.t.	%		f.t.
1.02		-3.1	62.5	tr.t.	+80.5
4.43		-8.7	66.67		84.7
7.04		-12.0	71.60		90.7
10.80	E	-17.5	79.30		105.5
20.12	(4+1)	+14.3	90.20		132.7
30.0		41.3	100.00		168.0
39.61		58.5			
50.01		71.2			

Water + 4-Nitrohydroquinone ($C_6H_5NO_4$)

Efremov, 1940

%		f.t.
0.50		-0.6
1.08		30.2
3.20		49.6
7.50		59.1
17.50	L_1+L_2+Ice	66.5
75.70	$L_1+L_2+C_6H_5NO_4$	67.0
80.0		70.0
90.0		88.5
100.0		131.2

%	sat.t.	%	sat.t.
L_1		L_2	
20.0	93.8	50.0	118.8
25.0	110.9	60.0	113.0
35.0	119.2	70.0	89.8
42.0 C.S.T.	120.2	75.0	68.8

Water + Picric acid ($C_6H_3N_3O_7$)

Findlay, 1902

%	f.t.	%	f.t.
1.04	0	1.94	40
.06	5	2.12	44.6
.09	10	2.46	50
.15	15	3.04	58.7
.21	20	3.05	60
.35	25	3.75	70
.40	26.5	4.45	80
.53	30	5.20	90
.87	38.4	5.95	100

Efremov, 1940

%		f.t.
1.01		7.1
1.74		33.3
3.31		62.9
4.82		83.9
8.20	L_1+L_2+Ice	104.8
95.80	L_1+L_2+Acid	104.8
97.23		111.8
98.80		117.8
100.00		122.4

%	sat.t.	%	sat.t.
L_1		L_2	
8.43	108.6	93.95	160.4
9.38	117.9	94.25	158.7
10.20	126.5	95.29	132.9
13.08	146.3		
14.11	152.4		
16.00	165.3		

LXV. WATER + ORGANIC ACIDS .

Water + Formic acid (CH_2O_2)

Heterogeneous equilibria .

Gerber, 1891 - 1892

t	% L	% V
30.3	22.66	10.9
42.35	-	9.6
61.35	-	9.2
80.8	-	10.8

Vrevskii and Glagoleva, 1928

% L	% V	p	% L	% V	p
80°			60°		
4.0	1.56	-	22.9	13.0	138.8
21.3	10.7	338.4	43.9	31.1	129.0
40.5	26.4	306.2	59.8	54.3	123.6
61.3	54.5	285.5	65.0	61.1	113.0
71.0	68.9	284.7	71.7	75.1	116.9
73.5	74.6	278.6	85.0	90.8	135.3
75.6	78.1	285.4	100.0	100.0	190.3
79.8	84.6	296.3			
82.0	86.9	303.6			
98.5	89.1	390.5			
100.0	100.0	397.9			

Othmer, 1932

% L	% V	% L	% V
750mm at b.t.			
90	94	50	35.6
80	81.8	40	24.2
76.5	76.5	30	16.4
70	65.2	20	9.8
60	49.8	10	4.2

Water + 4-Nitrohydroquinone ($C_6H_5NO_4$)

Efremov, 1940

%		f.t.
0.50		-0.6
1.08		30.2
3.20		49.6
7.50		59.1
17.50	L_1+L_2+Ice	66.5
75.70	$L_1+L_2+C_6H_5NO_4$	67.0
80.0		70.0
90.0		88.5
100.0		131.2

% L_1		sat.t.	% L_2	sat.t.
20.0		93.8	50.0	118.8
25.0		110.9	60.0	113.0
35.0		119.2	70.0	89.8
42.0	C.S.T.	120.2	75.0	68.8

Water + Picric acid ($C_6H_3N_3O_7$)

Findlay, 1902

%	f.t.	%	f.t.
1.04	0	1.94	40
.06	5	2.12	44.6
.09	10	2.46	50
.15	15	3.04	58.7
.21	20	3.05	60
.35	25	3.75	70
.40	26.5	4.45	80
.53	30	5.20	90
.87	38.4	5.95	100

Efremov, 1940

%		f.t.
1.01		7.1
1.74		33.3
3.31		62.9
4.82		83.9
8.20	L_1+L_2+Ice	104.8
95.80	L_1+L_2+Acid	104.8
97.23		111.8
98.80		117.8
100.00		122.4

% L_1	sat.t.	% L_2	sat.t.
8.43	108.6	93.95	160.4
9.38	117.9	94.25	158.7
10.20	126.5	95.29	132.9
13.08	146.3		
14.11	152.4		
16.00	165.3		

LXV. WATER + ORGANIC ACIDS .

Water + Formic acid (CH_2O_2)

Heterogeneous equilibria .

Gerber, 1891 - 1892

t	% L	% V
30.3	22.66	10.9
42.35	-	9.6
61.35	-	9.2
80.8	-	10.8

Vrevskii and Glagoleva, 1928

% L	% V	p	% L	% V	p
	80°			60°	
4.0	1.56	-	22.9	13.0	138.8
21.3	10.7	338.4	43.9	31.1	129.0
40.5	26.4	306.2	59.8	54.3	123.6
61.3	54.5	285.5	65.0	61.1	113.0
71.0	68.9	284.7	71.7	75.1	116.9
73.5	74.6	278.6	85.0	90.8	135.3
75.6	78.1	285.4	100.0	100.0	190.3
79.8	84.6	296.3			
82.0	86.9	303.6			
98.5	89.1	390.5			
100.0	100.0	397.9			

Othmer, 1932

% L	% V	% L	% V
750mm	at b.t.		
90	94	50	35.6
80	81.8	40	24.2
76.5	76.5	30	16.4
70	65.2	20	9.8
60	49.8	10	4.2

A.N. and A.J.R. Campbell, 1937

% L	% V	p_1	p_2	p
		30°		
0	0	31.51	-	31.51
11.22	4.0	29.9	0.485	30.385
20.30	8.94	28.5	0.935	29.435
39.2	23.00	25.8	3.02	28.82
55.2	49.3	19.0	6.90	25.90
63.5	63.5	13.8	9.65	23.45
80.0	88.0	3.0	27.7	30.70 Az
87.0	95.0	0.86	38.0	38.86
100.0	100.0	0.0	52.2	52.20
		50°		
0	0	92.5	0	92.5
11.3	5.7	88.0	2.07	90.07
21.8	12.6	83.2	4.42	87.62
38.2	21.15	74.4	11.20	85.60
56.5	46.5	52.0	21.40	73.40
63.5	62.0	38.0	34.70	72.70 Az
81.5	89.5	7.45	79.20	86.65
88.5	96.5	4.05	95.90	99.95
100.0	100.0	0	125.90	125.90

Takagi, 1939

mol% L	mol% V	b.t.	mol% L	mol% V	b.t.
25mm			49mm		
95.6	99.4	18.0	91.8	97.4	33.7
83.5	93.6	24.3	83.4	92.4	37.7
73.2	81.3	29.0	73.0	79.0	41.0
62.3	62.3	31.4 Az	64.7	64.7	42.3 Az
43.6	30.1	29.2	58.0	52.9	41.5
33.6	20.1	28.3	43.9	30.0	40.7
			33.7	19.1	40.1
			16.9	7.3	39.0
252mm			774mm		
90.7	96.8	73.0	76.8	76.8	108.1 Az
83.2	89.6	75.8			
72.1	72.1	77.7 Az			
64.5	59.5	77.2	100mm		
51.0	37.2	75.8			
34.3	18.0	74.0	67.4	67.4	56.6 Az
19.1	8.9	72.8			

Sheinker and Peresleni, 1952

% V	% L	b.t.	% V	% L	b.t.
		50 mm			
0.0	0.0	38.4	61.9	63.9	42.3
5.9	13.9	39.3	68.6	66.8	42.3
11.3	22.5	39.8	77.0	71.6	42.0
21.2	35.2	40.4	86.4	77.3	40.0
28.3	41.2	40.8	91.1	81.8	38.7
35.6	47.3	41.3	96.1	89.1	35.3
51.2	56.5	41.9	98.3	92.2	33.7
57.4	60.7	42.1	100.0	100.0	28.5

% V	% L	b.t.	% V	% L	b.t.
	100mm			200mm	
0	0	51.6	0	0	66.4
20.8	34.8	53.5	20.7	34.9	68.4
62.3	65.2	55.7	65.9	62.9	71.4
69.6	69.1	55.9	70.2	70.8	71.5
75.6	72.0	55.8	73.1	71.8	71.5
78.7	73.3	55.5	76.3	73.4	71.4
92.9	87.5	52.5	97.1	94.1	65.7
96.7	93.5	48.8	100.0	100.0	60.5
100.0	100.0	43.7			

Melnikov and Tsirlin, 1956

% L	% V	b.t.	% L	% V	b.t.
		760 mm			
0.83	0.39	100.04	67.29	63.43	107.2
5.06	2.42	100.1	73.08	72.85	107.6
14.78	7.67	100.3	76.80	77.98	107.6
24.89	14.06	101.6	81.59	83.60	107.0
33.06	20.36	102.7	84.90	87.52	106.2
42.04	28.77	103.8	89.08	90.90	104.9
49.18	37.75	104.8	90.92	82.36	104.0
54.23	44.64	105.5	100.00	100.00	101.0
61.37	34.21	106.4			

Konowalow, 1881

t	p		t	p
17.5	29.1	100 %	59.7	187.8
40.5	85.5		70.1	280.2
18.90	15.3	22.66 %	80.80	343.6
42.35	58.0		100.00	719.8
61.35	147.4			
16.95	11.7	50.02 %	70.10	169.9
31.80	29.1		80.95	209.4
42.90	51.7		90.70	457.85
54.90	102.7		99.65	644.0
18.00	14.5	79.78 %	80.70	290.9
42.15	54.5		80.80	292.1
61.05	130.5		99.80	590.7
59.90	123.3			

Kalhbaum, 1893

p	t 100%	89.53%	70.49%	49.36%	0%
9.0	-	4.7	-	-	-
10.0	-1.0	6.4	13.4	13.1	11.2
11.0	+0.6	8.0	15.2	14.7	12.8
12.0	+1.9	9.4	16.6	16.2	14.15
13	3.2	10.7	18.0	17.5	15.41
14	4.4	12.0	19.2	18.8	16.55
15	5.5	13.1	20.3	20.0	17.71
16	6.6	14.2	21.4	21.1	18.68
17	7.6	15.3	22.5	22.1	19.69
18	8.5	16.3	23.4	23.1	20.66
19	9.4	17.3	24.3	24.1	21.61
20	10.3	18.2	25.2	25.0	22.49
21	11.1	19.0	26.1	25.8	23.30
22	11.9	19.9	26.9	26.6	24.10
23	12.7	20.7	27.7	27.4	24.85
24	13.5	21.5	28.4	28.1	25.57
25	14.3	22.3	29.1	28.8	26.23
26	15.0	23.1	29.8	29.4	26.87
27	15.7	23.8	30.4	30.2	27.48
28	16.4	24.5	31.1	30.8	28.06
29	17.1	25.2	31.7	31.4	28.62
30	17.8	25.8	32.3	32.0	29.18
31	18.4	26.5	32.9	32.6	29.30
32	19.1	27.1	33.5	33.2	30.23
33	19.7	27.7	34.1	33.7	30.72
34	20.3	28.2	34.6	34.2	31.21
35	20.9	28.9	35.1	34.7	31.69
36	21.5	29.3	35.6	35.2	32.27
37	22.1	29.9	36.1	35.7	32.63
38	22.6	30.4	36.6	36.2	33.09
39	23.2	30.9	37.1	36.7	33.54
40	23.7	31.4	37.6	37.2	33.98
41	24.2	31.9	38.1	37.6	34.42
42	24.8	32.4	38.5	38.0	34.85
43	25.3	32.9	39.0	38.5	35.30
44	25.8	33.4	39.4	38.9	35.71
45	26.2	33.9	39.9	39.3	36.13
46	26.7	34.3	40.3	39.7	36.55
47	27.1	34.8	40.7	40.1	36.96
48	27.6	35.2	41.1	40.5	37.35
49	28.0	35.7	41.5	40.9	37.75
50	28.5	36.1	41.8	41.3	38.13
51	28.9	36.6	42.2	-	38.50
52	29.3	37.0	42.6	-	38.89
53	29.7	37.4	42.9	-	39.26
54	30.1	-	43.3	-	39.62
55	30.5	-	43.7	-	40.00
56	30.9	-	44.1	-	40.38
57	31.2	-	44.4	-	40.73
58	31.6	-	44.7	-	41.10
59	32.0	-	45.1	-	41.43
60	32.3	-	45.4	-	41.30
61	32.6	-	45.7	-	42.14

Jozefowicz, 1938

mol%	p	b.t.	mol%	p	b.t.
100.00	743	100.50	47.79	595	107.05
93.80	711	102.22	36.95	619	105.89
88.20	677	103.68	28.09	646	104.62
77.44	633	105.75	14.35	700	102.31
68.88	605	106.86	4.28	742	100.65
58.30	588	107.37	0.00	760	100.00

de Coninck, 1916

Az : 77.38 % b.t. = 107 - 108°

Lecat, 1949

%	b.t.
77.5	107.3 Az
100	100.75

Kremann, 1893

%	f.t.	%	f.t.	%	f.t.
97.40	+ 5.3	76.71	-20.5	64.56	-52.5
93.58	- 0.4	73.36	-32.7	62.52	-50.8
90.03	- 6.2	72.97	-38.0	57.72	-43.7
85.96	-11.7	70.11	-41.5	54.45	-40.8
81.54	-18.8	68.13	-44.0	50.71	-35.1
77.55	-25.9	67.14	-45.8		
2nd series					
5.60	- 3.6	39.62	-24.5	69.84	-39.4
11.63	- 6.4	44.58	-29.8	72.73	-35.5
17.63	- 9.2	44.82	-28.4	72.97	-38.0
23.54	-12.8	50.19	-34.8	74.75	-31.6
29.23	-16.3	53.21	-38.7	76.71	-20.5
34.61	-20.6	68.13	-44.0		

Abegg, 1894

M	f.t.	M	f.t.
0.980	-1.877	3.001	-5.807
1.799	-3.437	4.920	-9.927

Jones and Murray, 1903

%	f.t.	%	f.t.
1.532	- 0.64	89.97	- 7.11
3.895	- 1.62	91.59	- 4.69
4.534	- 1.89	94.03	- 1.30
12.31	- 5.28	95.63	+ 0.87
18.75	- 8.50	97.33	+ 3.25
22.09	-10.34	98.35	+ 4.65
		100.00	+ 7.00

Faucon, 1910

%	f.t.	%	f.t.	%	f.t.
3.92	- 1.81	47.22	-25.20	77.00	-35.00
8.30	- 3.11	51.17	-28.20	85.56	-17.80
10.00	- 4.00	56.10	-34.10	89.10	-10.60
20.80	- 9.30	60.50	-38.20	92.40	- 4.20
33.00	-15.80	65.80	-48.00	95.80	+ 0.80
40.90	-21.50	72.00	-45.00	100.00	+ 8.51

Jones and Bury, 1927

m	f.t.	m	f.t.
0.2419	-0.465	1.674	-3.032
.2684	.515	1.930	.475
.3362	.641	2.089	.744
.4273	.810	.233	.989
.6262	1.173	.426	4.312
.7599	.419	.675	.723
.9379	.737	.807	.942
.9765	.807	.813	.948
1.0410	.924	3.005	5.254
.0990	2.028	.083	5.385
.3620	2.490	.201	-5.576
.6580	-3.006		

Glagoleva, 1941

%	f.t.	E	min.
99.68	+1.5	-	-
95.16	-11.5	-	-
91.70	-28.1	-40.5	-
86.46	-35.0	-39.8	-
83.20	-	-39.7	1.4
77.90	-38.3	-39.9	0.7
73.54	-31.5	-40.2	0.1
72.55	-30.7	-	-
72.01	-33.9	-44.6	-
66.30	-43.0	-44.6	1.5
66.30	-42.2	-44.8	-
66.37	-	-44.6	1.6
62.73	-43.6	-44.2	1.3
61.50	-42.6	-45.3	1.1
61.42	-39.5	-44.6	0.9
58.33	-33.9	-	-
57.99	-33.0	-	-
56.13	-31.3	-	-
53.57	-35.4	-39.6	0.6
53.57	-37.3	-39.3	0.95
51.45	-	-39.2	0.8
47.50	-35.4	-39.2	-
47.26	-31.3	-40.7	0.4
27.70	-17.53	-	-
19.45	-7.7	-	-
(1+1)	(2+1)		

Kuznetsova and Bergman, 1956

mol%	f.t.	E	mol%	f.t.	E
100.0	8.3	-	41.0	-48.5	-
80.0	-5.6	-	39.8	-46.8	-
74.8	-8.2	-	37.0	-43.0	-
69.5	-13.0	-	35.8	-	-49.0
64.5	-17.3	-	33.4	-	-50.0
59.0	-23.2	-	31.7	-33.5	-
55.0	-	-49.0	31.2	-	-49.0
54.2	-28.3	-	28.0	-29.3	-
50.0	-35.3	-	25.0	-	-50.0
45.0	-	-49.5	23.1	-22.8	-
44.6	-42.0	-	20.0	-19.7	-
42.0	-46.7	-	12.0	-10.3	-
41.5	-	-49.0	0.0	0.0	-

Properties of phases

Vrevskii and Glagoleva, 1928

%	d(vapour)	%	d(vapour)
80°		60°	
10.7	1.80	13.0	1.94
26.4	1.97	31.1	2.16
54.5	2.15	54.3	.33
68.9	.29	61.1	.37
74.6	.33	75.1	.48
78.1	.35	90.8	.64
84.6	.433	100.0	.767
86.9	.45		
99.1	.57		
100.0	.628		

Biedermann, 1888

%	d	%	d	%	d
		15°			
0	0.9991	33	1.0866	67	1.1543
1	1.0016	34	.0890	68	.1562
2	.0041	35	.0915	69	.1581
3	.0066	36	.0940	70	.1600
4	.0091	37	.0965	71	.1619
5	.0116	38	.0990	72	.1638
6	.0141	39	.1015	73	.1657
7	.0166	40	.1040	74	.1676
8	.0191	41	.1059	75	.1695
9	.0216	42	.1078	76	.1714
10	.0241	43	.1097	77	.1733
11	.0269	44	.1116	78	.1752
12	.0297	45	.1135	79	.1771
13	.0325	46	.1154	80	.1779
14	.0353	47	.1173	81	.1811
15	.0381	48	.1192	82	.1832
16	.0409	49	.1211	83	.1853
17	.0437	50	.1230	84	.1874
18	.0465	51	.1248	85	.1895
19	.0493	52	.1266	86	.1916
20	.0521	53	.1284	87	.1937
21	.0548	54	.1302	88	.1958
22	.0575	55	.1320	89	.1979
23	.0602	56	.1338	90	.200
24	.0629	57	.1356	91	.202
25	.0656	58	.1374	92	.2043
26	.0683	59	.1392	93	.2065
27	.0710	60	.1410	94	.2087
28	.0737	61	.1429	95	.2109
29	.0764	62	.1448	96	.2131
30	.0791	63	.1467	97	.2153
31	.0816	64	.1486	98	.2175
32	.0841	65	.1505	99	.2197
33	.0866	66	.1524	100	.2219

Lüdeking, 1886

%	d	%	d
22°			
0	0.9978	20.3	1.0459
2.8	1.0050	24.2	.0542
3.1	.0056	29.9	.0642
3.5	.0066	33.8	.0775
4.0	.0080	38.9	.0891
4.8	.0098	46.0	.1051
6.0	.0123	56.1	.1231
7.8	.0169	63.0	.1431
9.2	.0201	71.9	.1624
11.3	.0248	83.6	.1876
14.5	.0325	100.0	.2155

Perkin, 1886

mol%	d	t	d
15°		50mol%	
0	0.99913	4	1.1829
50	1.16977	15	1.16977
100	1.22627	25	1.16117

Otten, 1887

%	d	%	d
18°			
4.943	1.0143	59.960	1.1440
9.549	.0258	70.064	.1663
20.343	.0520	89.023	.2036
29.827	.0739	95.535	.2210
39.946	.0876	100.000	.2238
50.021	.1214		

Hartwig, 1888

%	d	%	d
18°			
4.03	1.0113	28.18	1.0687
7.79	.0101	55.21	.1286
14.35	.0362	100.00	.2198

Le Blanc, 1889 and 1896

%	d
20°	
0	0.99823
18.69	1.04475
29.06	1.06950

Turbaba, 1893

%	d 0°	15°	30°
4.87	1.01451	1.01212	1.00736
9.31	.02748	.02372	.01803
16.69	.04806	.04229	.03508
20.10	.05747	.05079	.04292
25.05	.07062	.06286	.05408
30.09	.08398	.07513	.06545
35.11	.09700	.08690	.07675
40.11	.10984	.09913	.08783
45.10	.12249	.11102	.09892
50.07	.13506	.12266	.10989
55.09	.14752	.13427	.12094
59.73	.15892	.14512	.13109
65.34	.17249	.15797	.14320
71.03	.18599	.17073	.15532
80.09	.20670	.19035	.17400
92.33	.23229	.21433	.19664
99.64	.24513	.22678	.20683

Charpy, 1893

%	d	%	d
0°			
0	0.9987	70.5187	1.1844
19.4277	1.0554	85.6284	.2185
37.5362	.1030	100	.2452
54.5668	.1456		

Lüdemann, 1935

N	mol%	d	N	mol%	d
25°					
0	0	0.99707	12.1785	28.360	1.11465
1.1539	2.126	1.01009	16.1336	41.918	.14681
4.5330	8.894	.04521	18.9176	53.402	.16791
6.9830	14.408	.06868	23.0080	75.166	.19569
9.1078	19.693	.08801	26.3131	99.382	.21377

Richardson and Allaire, 1897

%	d	%	d	%	d
		20°			
0	0.9983	34	1.0824	68	1.1605
1	1.0020	35	.0848	69	.1629
2	.0045	36	.0872	70	.1656
3	.0071	37	.0896	71	.1678
4	.0094	38	.0920	72	.1703
5	.0116	39	.0941	73	.1729
6	.0142	40	.0964	74	.1753
7	.0171	41	.0991	75	.1770
8	.0197	42	.1016	76	.1786
9	.0222	43	.1039	77	.1802
10	.0247	44	.1063	78	.1819
11	.0272	45	.1086	79	.1838
12	.0297	46	.1109	80	.1861
13	.0322	47	.1131	81	.1877
14	.0346	48	.1158	82	.1897
15	.0371	49	.1186	83	.1915
16	.0394	50	.1208	84	.1930
17	.0418	51	.1224	85	.1954
18	.0442	52	.1245	86	.1977
19	.0465	53	.1270	87	.1995
20	.0489	54	.1296	88	.2013
21	.0513	55	.1321	89	.2029
22	.0538	56	.1343	90	.2045
23	.0562	57	.1362	91	.2060
24	.0586	58	.1382	92	.2079
25	.0610	59	.1402	93	.2100
26	.0634	60	.1425	94	.2118
27	.0657	61	.1449	95	.2141
28	.0682	62	.1474	96	.2159
29	.0706	63	.1494	97	.2171
30	.0730	64	.1513	98	.2184
31	.0754	65	.1544	99	.2203
32	.0778	66	.1566	100	.2213
33	.0801	67	.1585		

Drucker, 1905

%	d 25°	d 35°	%	d 25°	d 35°
0	0.99707	0.99409	64.39	1.14644	1.13678
4.543	1.00339	1.00470	68.69	.15621	.14589
11.30	.02593	.02127	82.60	.18313	.17278
19.53	.05564	.04944	85.69	.19091	.17935
39.64	.09072	.08297	91.54	.20320	.19161
61.15	.13955	.13006	98.74	.21295	.20064

Homfray, 1905

%	t	d
0.0	19.0	0.9984
62.7	19.5	1.1462
71.9	19.7	1.1635
100.0	19.2	1.2205

Tsakalotos, 1908

%	d	%	d
	20°		
0	0.9982	74.5	1.171
20.2	1.049	77.2	.176
40.6	.098	87.1	.192
61.1	.143	100.0	.216
68.4	.159		

Glagolova, 1945

%	d	%	d
20°		25°	
0	0.99823	0	0.99707
27.79	1.068	22.81	1.0288
32.30	.082	31.00	.0522
47.57	.1133	35.19	.0640
48.69	.1145	41.79	.0784
51.40	.1198	52.61	.1208
56.23	.1325	55.40	.1238
56.60	.1325	56.10	.1292
58.50	.1366	56.33	.1295
61.28	.1415	57.62	.1324
63.38	.1484	63.24	.1489
63.84	.1503	64.96	.1502
66.60	.1584	68.50	.1571
70.79	.1622	69.90	.1599
72.31	.1639	71.10	.1615
78.97	.1820	73.34	.1682
97.64	.2270	75.50	.1717
		79.68	.1782
		97.64	.2127

Guillaume, 1946

%	d	%	d
	20°		
5.8	1.0153	64	1.1517
10.6	.0274	100	.2210
21	.0526		

Glagolewa, 1947

wt%	mol%	d 20°	d 25°
0	-	0.99825	0.99707
28.9	6.25	1.0680	1.04600
36.5	4.50	.1010	.0600
38.0	4.46	-	.0680
47.6	2.88	.1130	.1110
50.6	2.69	.1210	.1190
51.4	2.41	.1220	.1192
56.2	1.99	.1350	.1280
58.5	.95	.1360	.1280
60.3	.68	.1363	.1310
66.6	.16	.1375	.1350
70.4	.09	.1660	.1603
72.2	0.96	.1700	.1650
78.9	.68	.1830	-
80.0	.64	.1870	.1760
97.5	.06	.2274	.2170

Viscosity and surface tension .

Tsakalotos, 1908

%	η	%	η
20°			
0	1003	74.5	1535
20.2	1108	77.2	1576
40.6	1246	87.1	1669
61.1	1430	100.0	1780
68.4	1480		

Bingham, White and al., 1913

t	η 100%	77.69%	52.94%	28.53%	0%
25	1619	1455	1234	1068	895.3
35	1334	1202	1018	870.0	722.0
45	1123	1016	860.4	729.5	601.3
55	961.8	872.8	738.6	622.9	507.9
65	-	759.6	642.9	540.0	436.8
75	-	669.6	563.7	474.2	380.7
85	-	594.8	500.0	418.7	335.6

Davis and Jones, 1915 and 1918

%	η 15°	25°	%	η 15°	25°
0	1134	891	60	1591	1287
10	1215	932	70	1693	1371
20	1282	1014	80	1803	1452
30	1339	1072	90	1914	1546
40	1408	1135	100	1963	1571
50	1469	1202			

Davis, 1918

vol%	η 15°	25°	vol%	η 15°	25°
0	1134	891	60	1591	1287
10	1215	932	70	1693	1371
20	1282	1014	80	1803	1452
30	1339	1072	90	1914	1546
40	1408	1135	100	1963	1571
50	1469	1202			

Glagoleva, 1946

%	η	%	η
20°		25°	
0	1006	0	891
27.79	1195	22.88	979
32.30	1215	31.00	1029
47.57	1323	35.19	1039
48.69	1328	41.79	1076
51.40	1347	52.61	1174
56.30	1394	55.40	1219
56.60	1400	56.10	1227
58.50	1400	56.33	1228
60.30	1414	60.30	1268
63.38	1478	64.96	1305
63.84	1480	69.90	1356
66.60	1577	71.10	1360
70.49	1519	73.34	1362
72.31	1525	79.68	1427
78.97	1601	97.64	1598
97.64	1680		

Morgan and Neidle, 1913

%	σ	t	σ
30°		25%	
0.000	71.030	25	55.665
1.000	69.816	30	55.186
2.500	68.024	35	54.706
5.000	65.706		
10.00	62.061	50%	
15.00	59.197		
20.00	56.917	25	48.585
25.00	55.190	30	48.101
30.01	53.575	35	47.618
40.00	50.664		
50.00	48.112	75%	
60.00	45.731		
70.00	43.240	25	42.494
75.00	41.990	30	41.985
80.01	40.703	35	41.476
90.00	38.026		
100.00	35.281		

Forch, 1899

M(18°)	t	σ	M(18°)	t	σ
0.0290	18.05	72.79	0.956	18.25	67.45
.1905	17.97	71.61	3.187	17.95	60.54
.3818	15.41	70.45	16.05	18.14	45.37

Drucker, 1905

c	σ 25°	35°	c	σ 25°	35°
4.543	67.95	66.90	61.15	47.45	46.50
11.80	62.75	62.00	64.39	46.60	45.75
19.53	57.25	56.40	68.69	45.65	44.75
39.64	52.65	52.00	85.69	41.55	40.30

Le Blanc, 1889 and 1896

%	n_D
	20°
0	1.33325
18.69	1.34311
29.06	1.34820

Gerber, 1891 - 92

%	Dn(sol - aq.)
10	0.0050
20	.0100
30	.0143
40	.0185
50	.0227
60	.0264
100	.0374

Homfray, 1905

%	t	n_D
0.0	19.0	1.3333
62.7	19.5	.3625
71.9	19.7	.3652
100.0	19.2	.3717

Guillaume, 1946

%	n_{5780}
	20°
5.8	1.3379
10.6	.3410
21.0	.3465
64.0	.3658
100.0	.3744

Perkin, 1886

50mol% 19.3° (α)magn. = 0.8748

Guillaume, 1946

%	(α)magn. 10^6 (5780Å)
	20°
5.8	3.902
10.6	3.835
21.0	3.691
64.0	3.094
100.0	2.555

* in radians, gauss, centim.

Otten, 1887

%	$\varkappa$	$a.10^5$	$b.10^8$
	0°		
4.943	37.051	2871	12447
9.549	52.032	2652	10742
20.343	69.405	2431	8783
29.827	74.301	2293	7555
39.946	71.366	2180	6633
50.021	62.596	2150	6817
53.960	51.294	2092	6659
70.064	38.937	1922	3331
89.023	13.869	2001	6005

$\varkappa_t = \varkappa_0 \ (1+at + bt^2)$

Hartwig, 1888 and 1891

%	$\varkappa$ 0°	18°	30°
4.03	29.377	43.846	52.699
7.79	43.176	59.732	73.133
14.35	58.749	83.523	97.506
28.18	75.174	101.046	117.280
55.21	57.000	76.439	92.274
100.00	4.760	6.577	81.20

Whetham, 1897

%	κ	%	κ
18°			
100	0.0141	54.99	78.41
97.53	3.675	38.29	99.48
96.59	5.111	21.77	97.31
95.67	6.304	15.21	86.17
93.89	9.435	9.49	70.69
88.93	18.54	2.30	39.50
81.72	32.76	0.57	19.38
70.33	51.99		

Glagoleva, 1941

mol%	κ	mol%	κ	mol%	κ
20°				60°	
91.7	2.3	39.7	73	94.26	5
62.7	39	37.7	81	69.39	29
60.0	43	37.0	89	67.11	40
55.8	66	35.7	97	58.64	64
55.6	69	35.1	107	55.64	82
54.9	72	34.5	79	52.88	73
51.5	57	34.3	76	51.28	72
51.3	56	33.3	71	49.13	73
48.7	52	32.3	72	47.39	77
48.3	53	31.4	75	40.00	94
47.0	53	31.3	98	37.04	120
46.7	53	29.5	113	35.03	141
45.0	61	28.8	114	34.48	113
43.9	64			33.10	112
				32.26	112
				30.70	113

Pacault and Chédin, 1950

%	χ	%	χ
15°			
0	0.720	60.0	0.542
10	.690	69.9	.515
19.9	.659	79.0	.483
30.1	.630	89.9	.456
37.0	.611	100.0	.425
52.3	.568		

Heat constants

Lüdeking, 1886

%	U	%	U
50 - 16°			
4.8	0.9774	33.8	0.8430
6.0	.9727	38.9	.8191
7.8	.9636	46.0	.7866
11.3	.9476	56.1	.7397
14.5	.9324	63.0	.7076
20.3	.9056	71.9	.6665
24.2	.8877	83.6	.6120
29.9	.8613	100.0	.5360

Bury and Davies, 1932

%	U
13.5 - 16.5°	
5.767	0.9656
11.100	.9352
16.330	.9043
21.610	.8745
28.020	.8386
31.650	.8187

Glagoleva and Cherbov, 1936

%	U	%	U	%	U
25°		60°		80°	
16.15	0.9091	16.50	0.9191	16.10	0.9334
29.50	.8428	29.60	.8013	29.00	.8707
42.20	.7813	49.90	.7601	41.90	.8130
50.20	.7416	68.80	.6645	49.50	.7740
58.40	.7002	86.95	.5821	68.80	.6825
61.30	.6961	98.00	.5317	93.50	.5733
70.20	.6426			99.00	.5446
87.70	.5680				
98.50	.5165				
100.00	.5094				

Faucon, 1910

%	Q mix.	%	Q mix.
	9°		
95	73.13	70	166.04
90	138.86	60	127.79
85	174.92	50	96.52
80	185.24	30	37.93
75	184.80	15	19.60
		5	6.06

Campbell, 1937

%	Q mix.	%	Q mix.
	30°		
10.34	1.0	66.73	58.8
26.30	3.0	80.30	56.0
41.78	16.2	93.46	29.5
54.65	58.0		

%	Q vap.	%	Q vap.
30°		50°	
0	580.0	88.5	129.7
8.9	557.5	80.0	200.0
19.9	570.0	63.5	276.5
44.2	516.0		
54.0	369.0		
79.5	206.0		
88.5	189.0		
91.6	171.0		
100.0	153.5		

Water + Acetic acid ($C_2H_4O_2$)

Heterogeneous equilibria

Equilibrium L + V

Gerber, 1892

t	% L	% V	t	% L	% V
35.4	18.2	10	35.4	80.22	73.6
49.86	-	11.5	49.85	-	72.2
80.55	-	12.9	80	-	66.8

Roloff, 1893

% L	% V	b.t.	p
29.51	21.40	100.9	742.2
36.00	25.97	101.2	752.4
61.20	49.02	101.9	743.4
62.25	47.03	102	747.3

Rayleigh, 1902

% L	% V	% L	% V
	at b.t.		
6.77	5.10	61.56	49.07
14.58	11.36	72.27	60.45
26.82	20.35	81.66	73.06
37.46	28.10	90.70	86.22
49.98	38.49		

Pascal, Dupuy and al., 1921

% L	% V	b.t.	% L	% V	b.t.
		763mm			
0	0	100	49.90	36.00	101.0
5.0	4.0	100.1	60.23	47.00	101.7
10.10	7.0	100.1	69.91	57.92	102.6
15.19	11.27	100.1	80.15	70.00	104.3
20.13	15.25	100.2	90.13	82.50	108.0
25.51	18.60	100.4	95.50	90.00	111.0
30.18	22.20	100.5	99.00	97.50	115.0
40.09	29.28	100.6	100.00	100.00	118.0

Poramin and Markov, 1924

% L	% V	b.t.	% L	% V	b.t.
0	0.00	100.00	55	39.72	101.72
5	3.33	100.06	60	44.32	102.17
10	6.67	100.13	65	49.28	102.67
15	10.01	100.21	70	54.67	103.28
20	13.39	100.32	75	60.55	103.96
25	16.80	100.44	80	66.99	104.83
30	20.27	100.58	85	74.06	106.30
35	23.83	100.75	90	81.87	103.45
40	27.52	100.93	95	90.48	111.90
45	31.37	101.17	100	100.00	118.90
50	35.42	101.44			

Othmer, 1928

% L	% V	% L	% V
at b.t.			
94.1	89.2	37.3	27.8
81.5	70.9	22.3	16.3
66.4	52.7	12.3	8.9
52.1	39.1		

Vrevskii, Miscenko and Muromzew, 1928

% L	% V	p	% L	% V	p
80.0°			42.0°		
4.84	3.15	355.9			
18.45	13.23	352.1	18.35	13.23	60.2
34.89	26.25	344.6	49.62	40.40	58.0
49.38	38.58	337.2	65.10	57.63	55.6
66.17	54.40	326.6	80.40	74.45	52.8
79.99	71.78	303.5	95.12	92.05	47.2
96.00	91.79	246.7	100.00	100.00	38.5
100.00	100.00	208.3			

Bennett, 1929

b.t.	% L	% V
725.0mm		
116.8	100	100
112.5	92.0	96.0
109.1	86.5	92.0
107.3	79.5	89.5
105.0	70.0	82.5
103.7	61.0	73.0
102.9	54.0	70.0
102.2	49.5	62.5
101.1	37.5	51.0
100.4	25.0	36.0
99.2	0.0	0.0

Cornell and Montonna, 1933

wt% L	mol% L	wt% V	mol% V
20°			
90.1	73.2	84.0	61.2
89.6	72.2	83.1	59.6
85.0	63.0	76.9	50.0
80.4	55.1	70.9	42.2
75.8	48.5	65.2	36.0
69.7	40.8	57.9	29.7
65.7	36.5	53.2	25.5
60.4	31.4	47.6	21.5
55.9	27.6	43.4	18.7
50.5	23.5	38.4	15.8
45.5	20.1	34.5	13.6
41.1	17.4	31.0	11.9
40.4	16.9	30.3	11.6
35.5	14.2	26.5	9.8
30.5	11.7	22.7	8.1
25.1	9.1	18.8	6.5
24.6	8.9	18.6	6.4
30.0	7.0	15.0	5.0
15.3	5.1	11.5	3.8
10.1	3.3	7.4	2.4
9.7	3.1	7.2	2.3

Keyes, 1933

mol % (L)	mol % (V) 350mm	mol % (V) 200mm	mol % (V) 100mm
50.70	37.65	38.69	43.3
35.90	25.38	26.14	27.33
21.45	10.24	14.34	16.02
10.78	6.65	7.24	8.06
5.37	3.08	3.65	4.39
1.076	0.65	0.74	0.36
0.679	0.39	0.46	0.55
0.226	0.11	0.15	0.19

York Jr. and Holmes, 1942

b.t.	L wt%	L mol%	V wt%	V mol%
113.7	97.3	91.5	94.8	84.5
108.7	90.2	73.3	83.5	60.2
105.7	82.0	57.7	73.6	45.5
104.2	72.5	44.1	62.4	33.2
102.5	63.2	34.0	40.8	23.6
101.8	51.5	24.2	40.0	16.7
101.2	41.4	17.5	31.5	12.1
100.8	33.3	13.0	24.1	8.7

Gilmont and Othmer, 1944

b.t.	% L	% V	b.t.	% L	% V
760mm			500mm		
118.4	100.00	100.00	105.20	100.0	100.0
117.5	99.55	98.85	99.55	95.0	90.9
109.1	91.10	84.40	94.28	86.0	76.7
105.6	82.70	71.90	92.54	77.2	65.2
103.0	67.15	52.40	91.43	68.4	54.6
101.6	52.60	37.60	90.74	59.3	45.0
101.2	44.25	31.50	89.94	48.2	34.6
100.9	36.40	25.50	89.53	36.6	26.0
100.59	25.70	18.30	89.20	25.1	17.8
100.37	16.00	11.40	88.98	13.4	9.2
100.12	4.60	3.20	88.83	4.5	3.0
100.00	0.00	0.00	88.70	0.0	0.0
250mm			125mm		
85.50	100.0	100.0	67.80	100.0	100.0
80.42	95.4	91.7	64.25	96.1	92.9
77.33	89.5	82.5	61.53	89.3	83.0
75.86	83.5	74.5	59.83	78.6	70.2
75.12	79.2	69.3	58.61	64.4	55.8
73.76	65.8	55.4	58.10	56.3	46.2
73.09	55.0	45.0	57.58	39.1	33.8
72.51	39.0	31.8	57.28	28.7	24.4
72.23	29.2	23.9	56.92	17.8	14.6
71.87	16.1	12.5	56.68	89.8	7.5
71.63	4.3	6.2	56.57	5.2	3.7
71.60	0.0	0.0	56.40	0.0	0.0

Brown and Ewald, 1950

mol% L	mol% V	b.t.	mol% L	mol% V	b.t.
760mm					
99.979	99.9774	117.96	66.22	54.27	107.36
99.9787	99.9653	117.92	58.02	45.04	105.85
99.9753	99.9540	117.91	46.41	34.09	104.17
99.660	99.311	117.64	35.37	24.76	102.86
99.455	98.878	117.51	26.12	17.83	101.92
95.259	90.21	115.03	17.49	12.17	101.24
91.88	85.54	113.81	7.90	5.71	100.54
85.03	76.18	111.51	3.24	2.39	100.24
78.02	67.27	109.84	1.09	0.79	100.07
70.83	59.29	108.16			

Othmer, Silvis and Spiel, 1952

% L	% V	b.t.	% L	% V	b.t.
20mm			70mm		
100	100	30.0	100	100	54.9
88.6	84.8	25.2	88.25	83.5	48.3
79.8	75.2	24.2	80.0	73.7	47.3
65.3	59.6	23.7	65.9	57.0	46.1
49.3	42.9	23.1	49.9	40.2	45.4
35.4	28.7	22.8	33.75	27.8	45.1
20.55	15.1	22.4	20.7	14.9	44.8
10.3	6.1	22.1	10.15	6.3	44.6
10.1	6.4	22.1	0	0	44.4
3.8	3.8	22.1			
2.3	1.0	22.1			

% L	% V	b.t.
200mm		
100	100	79.9
88.2	83.1	71.3
80.0	71.3	69.9
65.9	54.75	68.3
49.9	38.9	67.5
35.6	27.2	66.9
20.8	15.1	66.7
10.2	7.0	66.4
0	0	66.4
2053mm		
100	100	153.6
92.4	86.9	143.9
84.4	74.1	138.7
74.8	61.45	135.2
63.4	48.5	133.6
56.25	43.0	132.9
45.2	33.3	131.8
40.35	30.0	131.7
30.7	22.85	130.9
29.6	22.7	130.8
21.5	16.75	130.7
17.8	13.7	130.5
13.5	10.4	130.5
11.3	8.3	130.4
7.7	5.8	130.4
3.3	2.5	130.4
0	0	130.4
16270mm		
100	100	257.0
83.8	73.25	231.6
60.0	47.7	221.5
41.8	31.7	218.7
30.0	22.2	217.8
22.3	17.8	217.2
18.1	14.6	217.1
11.4	9.7	216.9
11.3	9.5	216.8
4.9	4.4	216.7
0	0	216.5

% L	% V	b.t.
760mm		
100	100	118.5
92.7	87.1	109.7
87.3	79.7	107.2
79.05	68.8	105.4
69.7	57.4	104.0
60.3	47.3	102.7
48.5	36.6	101.7
38.1	28.4	101.5
30.9	23.1	100.9
22.8	17.1	100.7
9.6	7.1	100.3
4.3	3.1	100.2
0	0	100.0
5931mm		
100	100	200.7
94.3	88.8	189.0
86.4	76.2	182.1
76.2	61.4	177.2
75.45	61.0	177.1
65.4	51.5	175.0
57.5	44.4	173.4
49.3	37.0	172.2
41.1	30.75	171.1
35.85	27.3	171.0
29.6	23.0	170.8
22.1	17.8	170.5
17.9	14.3	170.3
11.4	9.2	170.0
10.0	8.3	169.9
3.8	3.2	169.9
0	0	169.9
26610mm		
5.15	4.53	243.4
3.27	2.98	243.4
1.11	1.10	243.0 ?
0.50	0.48	243.3
0	0	243.3

Vilim, Hala and al., 1954 (fig.)

mol% L	mol% V	mol% L	mol% V
760 mm			
100	100	50	37
90	82	40	28
80	68	30	21
70	57	20	14
60	46	10	7

Marek, 1955

b.t.	% L	% V	b.t.	% L	% V
400mm					
97.3	97.2	94.4	92.3	86.2	76.3
95.0	92.4	86.0	90.1	74.6	61.5
91.6	82.0	70.4	87.6	60.4	45.7
88.4	65.6	50.6	85.6	38.7	27.0
87.2	56.0	41.4	83.9	12.8	8.7
86.0	44.6	31.2	83.7	9.3	6.4
85.1	33.9	22.8	83.4	2.5	1.7
84.3	22.4	14.4			
83.5	8.3	5.0	(second series)		
83.15	3.2	1.8			
748.3mm					
118.04	100	100	100.87	16.5	11.2
110.85	84.8	75.0	100.21	9.18	6.42
107.51	69.2	55.4	99.83	3.82	2.78
104.90	52.7	39.0	99.65	0.732	0.516
101.84	27.6	18.6			

Bushmakin and Lutugina, 1956

mol% L	mol% V	mol% L	mol% V
760 mm			
94.2	88.8	44.4	32.3
89.2	82.2	33.7	23.7
87.9	80.7	31.6	22.0
79.1	68.4	28.5	19.5
77.4	66.0	22.3	15.4
75.0	63.9	22.0	15.2
68.6	55.6	17.7	12.3
58.4	45.0	16.7	11.8
58.4	45.2	5.0	3.7
54.1	40.6		

Vapour pressure and boiling temperature

Konovalov, 1881

t (18.2%)	p (18.2%)	t (50.1%)	p (50.1%)	t (80.22%)	p (80.22%)
16.65	13.35	16.45	12.5	16.0	11.8
49.35	87.70	49.95	85.0	49.85	78.2
80.55	352.50	80.20	335.6	80.0	300.7
100.00	750.20	100.00	724.0	100.05	645.7

Kahlbaum, 1893

p	b.t. 100%	b.t. 75%	b.t. 50.195%	b.t. 19.95%
11	19.5	-	-	13.4
12	21.0	16.3	15.2	14.8
13	22.3	17.7	16.5	15.1
14	23.5	18.7	17.8	17.3
15	24.6	19.8	18.9	18.3
16	25.7	20.8	20.0	19.3
17	26.7	21.8	20.9	20.3
18	27.7	22.7	21.9	21.2
19	28.6	23.5	22.7	22.0
20	29.5	24.4	23.6	22.8
21	30.4	25.2	24.4	23.6
22	31.2	26.0	25.1	24.3
23	32.1	26.8	25.9	25.1
24	32.9	27.5	26.6	25.8
25	33.7	28.2	27.3	26.5
26	34.4	28.9	28.0	27.1
27	35.1	29.5	28.6	27.8
28	35.7	30.2	29.2	28.4
29	36.4	30.8	29.8	29.1
30	37.1	31.4	30.3	29.6
31	37.7	31.9	30.9	30.1
32	38.3	32.5	31.4	30.7
33	38.9	33.0	32.0	31.2
34	39.4	33.5	32.5	31.8
35	40.0	34.0	33.0	32.2
36	40.5	34.5	33.5	32.7
37	41.0	35.0	34.0	33.2
38	41.5	35.4	34.4	33.7
39	42.0	35.9	34.9	34.1
40	42.5	36.4	35.3	34.6
41	43.0	36.8	35.8	35.0
42	43.5	37.2	36.2	35.4
43	44.0	37.7	36.7	35.9
44	44.5	38.1	37.1	36.3
45	44.9	38.5	37.5	36.7
46	45.4	39.0	37.9	37.1
47	45.8	39.4	38.3	37.4
48	46.3	39.8	38.7	37.9
49	46.7	40.2	39.1	38.3
50	47.2	40.6	39.5	38.7
51	47.6	41.0	39.9	39.0

Fredenhagen and Liebster, 1932

N	p_2	N	p_2
	25°		
0.0184	0.00407	1.190	0.2235
.1063	.0195	.210	.240
.2045	.0378	.500	.316
.2259	.0404	.513	.334
.527	.0846	.927	.412
.677	.1167	2.328	.546
.802	.1373	2.545	.613
1.007	.1833		

Keyes, 1933

mol%	b.t. 350mm	200mm	100mm
50.70	82.0	69.0	56.0
35.90	80.5	67.5	53.9
21.45	80.3	66.9	51.8
10.78	79.3	66.1	50.8
5.37	78.6	65.4	50.0
1.76	78.0	64.8	49.5
0.679	77.5	64.4	49.3
0.226	77.1	64.1	49.1

Hansen, Miller and Christian, 1955

mol %	lg a
20	0.02
40	0.06
60	0.11
80	0.24
100	0.43

a = activity coefficient

Freezing temperature

Rüdorff, 1870

%	f.t.	%	f.t.
100.000	+16.70	92.593	+6.25
99.503	15.65	91.743	5.3
99.010	14.80	90.910	4.3
98.523	13.25	90.090	3.6
97.088	11.95	89.286	+2.7
96.154	10.50	86.957	-0.2
95.239	9.40	84.676	-2.6
94.340	8.20	82.645	-5.1
93.458	+7.10	80.646	-7.4

Rüdorff, 1872

%	f.t.	%	f.t.
1.96	-0.65	18.70	-6.4
3.85	-1.20	23.08	-8.15
7.41	-2.40	26.47	-9.6
9.91	-3.20	33.33	-12.2
15.25	-5.15	38.27	-14.7

Grimaux, 1873

%	f.t.	%	f.t.
98.75	+14.4	50.62	-19.9
92.69	+5.5	43.46	-16.4
86.75	-1.4	38.22	-14.5
76.48	-11.7	30.77	-10.8
68.82	-19.0	23.77	-8.2
66.44	-20.3	20.78	-7.2
61.86	-24.0	18.11	-6.3
55.50	-22.3	16.21	-5.4

Kremann, 1893

%	f.t.	%	f.t.
97.09	13.1	50.82	-22.3
90.82	7.6	50.04	-20.6
85.41	1.0	47.45	-20.6
80.61	-4.1	42.16	-15.8
76.24	-7.2	38.15	-14.1
71.70	-12.7	37.19	-14.5
67.20	-18.2	33.70	-11.0
63.41	-21.5	29.03	-9.6
59.22	-26.1	24.96	-6.9
58.13	-26.1	20.91	-5.5
55.75	-24.4	16.37	-4.1
54.69	-25.7	11.24	-2.4
53.41	-22.3	5.44	-0.7

Pickering, 1893

%	f.t.	%	f.t.	%	f.t.
1.104	-0.34	42.444	-16.01	86.091	-0.84
1.598	-0.54	44.563	-17.09	88.257	+1.13
4.731	-1.56	47.316	-18.12	89.763	3.05
5.187	-1.69	50.098	-19.62	91.321	4.81
7.819	-2.53	54.923	-22.37	92.934	6.63
10.813	-3.53	59.334	-24.37	94.605	8.59
14.630	-4.34	63.318	-22.97	95.463	9.68
18.454	-6.24	67.968	-19.12	96.338	10.83
21.992	-7.51	72.126	-15.87	97.223	12.37
25.336	-8.82	72.457	-15.07	98.135	13.37
28.532	-10.04	74.509	-12.60	98.595	14.09
31.432	-11.28	76.681	-10.53	99.055	14.81
34.470	-12.52	78.984	-8.20	99.527	15.68
37.254	-13.70	81.428	-6.03	100.000	16.626
39.796	-14.86	84.029	-3.16		

Abegg, 1894

N	f.t.
1.022	-1.922
2.116	-4.070
3.126	-6.252
5.244	-10.872

Roloff, 1895

%	f.t.	%	f.t.
1.23	-0.406	34.23	-12.62
2.44	-0.795	37.60	-14.01
7.50	-2.425	40.31	-15.22
8.07	-2.641	47.54	-18.39
11.85	-3.910	51.80	-20.74
18.81	-6.430	53.83	-22.30
20.95	-7.240	57.52	-24.34
27.94	-9.780	60.21	-25.90
		62.14	-27.47

De Coppet, 1899

%	f.t.	%	f.t.	
		63.29	-28.87	metast.
100.00	16.675	62.43	-24.90	
89.67	2.95	60.00	-26.75	E
83.62	-3.94	55.86	-24.32	
75.44	-12.80	47.03	-19.30	
70.03	-18.10	38.27	-14.70	
63.43	-23.87	25.40	-8.98	
		9.91	-3.20	

Jones and Murray, 1903

%	f.t.	%	f.t.
100.00	+16.50	85.98	-1.36
98.869	14.44	83.99	-3.57
98.673	14.12	82.26	-5.50
97.905	12.92	81.46	-6.40
97.669	12.57		
96.248	10.61	29.75	-10.92
95.062	9.05	22.48	-8.05
93.981	7.71	21.94	-7.85
93.562	6.55	18.23	-6.19
91.113	4.39	15.41	-5.45
89.430	2.50	9.55	-3.30
87.660	+0.46	0.99	-0.34

Jones, 1904 and Jones and Getman, 1904

M	f.t.	M	f.t.
0.1	-0.210	5.0	-10.500
0.5	0.945	6.0	13.000
1.0	1.908	7.0	15.200
2.0	4.000	8.0	18.000
3.0	6.190	10.0	-24.000
4.0	-8.260		

Ballo, 1910

%	f.t.	%	f.t.
13.77	-3.6	69.65	-16.0
22.80	-6.5	72.10	-13.0
31.90	-10.5	77.76	-8.75
36.56	-11.75	82.20	-4.0
40.94	-15.0	86.71	+1.0
46.81	-18.2	89.07	+3.5
51.24	-22.0	92.30	+7.0
62.70	-23.2	96.31	+11.6
65.40	-20.0	100	+16.0

Faucon, 1910

%	f.t.	%	f.t.
2.52	-0.80	58.10	-27.00
6.10	-1.90	62.50	-24.60
10.52	-3.20	67.60	-19.10
15.85	-5.30	70.45	-16.80
19.70	-6.80	76.27	-11.30
26.12	-9.20	77.60	-9.90
31.40	-12.10	80.50	-7.80
35.72	-13.80	85.60	-2.01
40.36	-15.50	90.34	-3.11
44.80	-18.40	93.50	+8.15
50.20	-20.40	97.01	+11.96
55.44	-23.80	100.00	+16.68

Rosza, 1911

%	f.t.	%	f.t.
100	16.72	20.773	-7.255
99.787	16.30	13.377	-4.330
99.645	15.97	8.450	-2.811
99.056	14.95	5.662	-1.724
97.026	11.92	3.517	-1.135
91.781	5.30	1.356	-0.605
90.121	3.55	0.989	-0.312
84.860	2.33		

Paterno and Salimer, 1913

%	f.t.	%	f.t.
4.54	-1.60	46.48	-21.4
10.61	-3.84	54.37	-27.4
15.00	-5.15	62.29	-26.9
20.73	-7.18	71.44	-18.4
25.70	-8.92	77.61	-12.24
30.14	-10.90	85.24	-2.50
36.30	-12.96	90.41	+3.24
39.09	-14.60	96.61	+12.00
		100.00	+16.02

Jones and Bury, 1927

m	f.t.	m	f.t.	
0.1669	- 0.314	2.290	-3.974	
.2653	.437	.435	4.199	
.3097	.578	.533	.357	
.3401	.636	.605	.465	
.5432	1.002	.762	.704	
.6514	.197	.885	.900	
.8247	.505	.910	.937	
.8510	.549	3.029	5.113	
1.126	2.021	.259	.466	
.243	.227	.329	.566	
.396	.490	.330	.564	
.642	.901	.348	-5.587	
.689	.987			
.698	.998	0.2811	-0.526	(second
.812	3.183	0.8752	1.590	series)
.974	.466	1.396	2.488	
2.006	.507	2.005	3.505	
.114	.679	2.589	4.433	
.273	-3 .937	3.423	-5.727	

Timmermans and Kasanin, 1959

t	P trans.	P melt.
	10 %	
10	1150	900
35	1600	1600
50	-	2100
	25 %	
15	1260	910
20	1350	1140
25	1420	1200
30	1400	1550 (32.5°)
35	1500	1500
40	1600	-
45	-	1800
50	1900	1840
60	-	2510
	50 %	
15	1250	1000
25	1420	1260
30	1350	-
35	1600	1490
45	1800	1700
60	-	2510
	75 %	
5	1160	720
15	1250	950
25	1420	1200
35	1600	1380
45	1800	1700
	90 %	
15	1250	820
20	1350	950
25	1420	1100
35	1600	1300
45	1800	1650
60	-	3330

Properties of phases

Density

Vrevskii, Mishchenko and Muromtsev, 1928

% (V)	d (V)	% (V)	d (V)
42.00°		80.09°	
13.23	2.92	13.23	2.63
40.40	3.30	26.25	2.82
57.63	3.36	38.58	3.05
74.45	3.63	54.40	3.19
92.05	3.84	71.78	3.34
100.00	3.79	91.79	3.48
		100.00	3.59

van der Toorn, 1835

%	d	%	d	%	d
		15°			
0	0.9991	29	1.0463	58	1.0731
1	1.0010	30	.0476	59	.0736
2	.0028	31	.0489	60	.0740
3	.0046	32	.0501	61	.0744
4	.0063	33	.0513	62	.0747
5	.0080	34	.0528	63	.0750
6	.0098	35	.0537	64	.0753
7	.0115	36	.0549	65	.0755
8	.0132	37	.0560	66	.0756
9	.0150	38	.0571	67	.0757
10	.0168	39	.0582	68	.0757
11	.0185	40	.0592	69	.0757
12	.0202	41	.0602	70	.0756
13	.0219	42	.0612	71	.0754
14	.0236	43	.0622	72	.0750
15	.0252	44	.0631	73	.0745
16	.0268	45	.0640	74	.0739
17	.0284	46	.0649	75	.0732
18	.0301	47	.0658	76	.0723
19	.0317	48	.0666	77	.0713
20	.0333	49	.0674	78	.0701
21	.0349	50	.0682	79	.0687
22	.0364	51	.0689	80	.0672
23	.0380	52	.0696	81	.0655
24	.0395	53	.0702	82	.0637
25	.0410	54	.0705	83	.0617
26	.0424	55	.0714	84	.0594
27	.0438	56	.0720	85	.0565
28	.0451	57	.0726		

Oudemans, 1866 and 1868

%	d 0°	d 10°	d 15°
0	0.9999	0.9997	0.9992
1	1.0016	1.0013	1.0007
2	.0033	.0029	.0022
3	.0051	.0044	.0037
4	.0069	.0060	.0052
5	.0088	.0076	.0067
6	.0106	.0092	.0083
7	.0124	.0108	.0098
8	.0142	.0124	.0113
9	.0159	.0140	.0127
10	.0176	.0156	.0142
11	.0194	.0171	.0157
12	.0211	.0187	.0171
13	.0228	.0202	.0185
14	.0245	.0217	.0200
15	.0262	.0232	.0214
16	.0279	.0247	.0228
17	.0295	.0262	.0242
18	.0311	.0276	.0256
19	.0327	.0291	.0270
20	.0343	.0305	.0284
21	.0359	.0319	.0298
22	.0374	.0333	.0311
23	.0390	.0347	.0324
24	.0405	.0361	.0337
25	.0420	.0375	.0350
26	.0435	.0388	.0363
27	.0450	.0401	.0375
28	.0465	.0414	.0388
29	.0479	.0427	.0400
30	.0493	.0440	.0412
31	.0507	.0453	.0424
32	.0520	.0465	.0436
33	.0534	.0477	.0447
34	.0547	.0489	.0459
35	.0560	.0501	.0470
36	.0573	.0513	.0481
37	.0585	.0524	.0492
38	.0598	.0535	.0502
39	.0610	.0546	.0513
40	.0622	.0557	.0523
41	.0634	.0568	.0533
42	.0646	.0578	.0543
43	.0657	.0588	.0552
44	.0668	.0598	.0562
45	.0679	.0608	.0571
46	.0690	.0618	.0580
47	.0700	.0627	.0589
48	.0710	.0636	.0598
49	.0720	.0645	.0607
50	.0730	.0654	.0615
51	.0740	.0663	.0623
52	.0749	.0671	.0631
53	.0758	.0679	.0638
54	.0767	.0687	.0646
55	.0775	.0694	.0653
56	.0783	.0701	.0660
57	.0791	.0708	.0666
58	.0798	.0715	.0673
59	.0806	.0722	.0679
60	.0813	.0728	.0685
61	.0820	.0734	.0691
62	.0826	.0740	.0697
63	.0832	.0746	.0702
64	.0838	.0752	.0707
65	.0845	.0757	.0712
66	.0851	.0762	.0717
67	.0856	.0767	.0721
68	.0861	.0771	.0725
69	.0866	.0775	.0729
70	.0871	.0779	.0733
71	.0875	.0783	.0737
72	.0879	.0786	.0740

73	.0883	.0789	.0742
74	.0886	.0792	.0744
75	.0888	.0794	.0746
76	.0891	.0796	.0747
77	.0893	.0797	.0748
78	.0894	.0798	.0748
79	.0896	.0798	.0748
80	.0897	.0797	.0748
81	.0897	.0797	.0747
82	.0897	.0796	.0746
83	.0896	.0795	.0744
84	.0894	.0793	.0742
85	.0892	.0790	.0739
86	.0889	.0787	.0736
87	.0885	.0783	.0731
88	.0881	.0778	.0726
89	.0876	.0773	.0720
90	.0871	.0766	.0713
91	-	.0758	.0705
92	-	.0749	.0696
93	-	.0739	.0686
94	-	.0727	.0674
95	-	.0714	.0660
96	-	-	.0644
97	-	-	.0625
98	-	-	.0604
99	-	-	.0580
100	-	-	.0553

%	d		
	20°	30°	40°
0	0.9983	0.9958	0.9924
1	0.9997	.9972	.9936
2	1.0012	.9985	.9948
3	.0026	.9998	.9960
4	.0041	1.0012	.9972
5	.0055	.0025	.9984
6	.0062	.0038	.9996
7	.0084	.0051	1.0008
8	.0098	.0064	.0020
9	.0112	.0077	.0032
10	.0126	.0090	.0044
11	.0140	.0103	.0056
12	.0154	.0115	.0067
13	.0168	.0128	.0079
14	.0181	.0140	.0090
15	.0195	.0152	.0101
16	.0208	.0164	.0112
17	.0222	.0176	.0123
18	.0235	.0188	.0134
19	.0248	.0199	.0144
20	.0261	.0211	.0155
21	.0274	.0223	.0166
22	.0287	.0234	.0176
23	.0299	.0246	.0187
24	.0312	.0257	.0197
25	.0324	.0268	.0207
26	.0336	.0279	.0217
27	.0348	.0290	.0227
28	.0360	.0300	.0236
29	.0372	.0311	.0246
30	.0383	.0321	.0255
31	.0394	.0331	.0264
32	.0405	.0341	.0274
33	.0416	.0351	.0283
34	.0426	.0360	.0291
35	.0437	.0370	.0300
36	.0448	.0380	.0308
37	.0453	.0389	.0316
38	.0468	.0398	.0324
39	.0478	.0407	.0332
40	.0488	.0416	.0340
41	.0498	.0425	.0348
42	.0507	.0433	.0355
43	.0516	.0441	.0363
44	.0525	.0449	.0370
45	.0534	.0457	.0377
46	.0543	.0465	.0384
47	.0551	.0472	.0391
48	.0559	.0480	.0397
49	.0567	.0487	.0404
50	.0575	.0494	.0410
51	.0583	.0501	.0416
52	.0590	.0508	.0423
53	.0597	.0515	.0429
54	.0604	.0521	.0434
55	.0611	.0527	.0440
56	.0618	.0533	.0445
57	.0624	.0538	.0450
58	.0630	.0544	.0455
59	.0636	.0549	.0460
60	.0642	.0554	.0464
61	.0648	.0559	.0468
62	.0653	.0564	.0472
63	.0658	.0568	.0475
64	.0663	.0572	.0479
65	.0667	.0576	.0482
66	.0671	.0579	.0485
67	.0675	.0583	.0488
68	.0679	.0586	.0491
69	.0683	.0588	.0493
70	.0686	.0591	.0495
71	.0689	.0593	.0497
72	.0691	.0595	.0498
73	.0693	.0597	.0499
74	.0695	.0599	.0500
75	.0697	.0600	.0501
76	.0699	.0601	.0501
77	.0700	.0601	.0501
78	.0700	.0601	.0500
79	.0700	.0600	.0499
80	.0699	.0599	.0497
81	.0698	.0598	.0495
82	.0696	.0596	.0492
83	.0694	.0593	.0489
84	.0691	.0589	.0485
85	.0688	.0585	.0481
86	.0684	.0580	.0475
87	.0679	.0575	.0469
88	.0674	.0569	.0462
89	.0668	.0562	.0455
90	.0660	.0554	.0447
91	.0652	.0545	.0438
92	.0643	.0535	.0428
93	.0632	.0524	.0416
94	.0620	.0512	.0403
95	.0606	.0497	.0388
96	.0589	.0480	.0370
97	.0570	.0460	.0350
98	.0549	.0438	.0327
99	.0525	.0413	.0301
100	.0497	.0384	.0273

Kohlrausch, 1876

%	d	%	d
	18°		
0	0.9986	47.80	1.0581
5.00	1.0058	61.40	.0660
10.04	.0133	76.40	.0693
20.00	.0257	99.70	.0490
29.93	.0392		
39.97	.0496		

Hager, 1876

%	d	%	d
	17.5°		
0	0.9987	70	1.0691
10	1.0129	75	1.0700
20	1.0264	80	1.0734
30	1.0393	85	1.0727
40	1.0511	90	1.0703
50	1.0601	95	1.0651
60	1.0672	100	1.0570
65	1.0691		

Reiss, 1880

%	d 20°	d 40°	%	d 20°	d 40°
0.0	0.9982	0.9924	59.0	1.0618	1.0443
2.7	1.0020	0.9955	62.0	.0634	.0455
5.4	.0059	0.9986	64.5	.0645	.0460
10.8	.0166	1.0051	67.0	.0655	.0470
19.3	.0245	.0140	70.3	.0666	.0475
28.1	.0323	.0224	77.6	.0677	.0480
38.0	.0452	.0306	82.0	.0664	.0460
47.0	.0536	.0377	85.0	.0654	.0446
50.0	.0555	.0397	87.8	.0647	.0431
53.0	.0577	.0415	93.2	.0604	.0379
56.0	.0600	.0430	100.0	.0471	.0248

Damien, 1881

%	d	%	d
	20°		
0	0.99650	68.97	1.0652
10.81	.99827	72.73	.0660
20.72	1.0125	76.92	.0690
30.77	.0277	81.63	.0664
41.49	.0401	86.96	.0653
51.81	.0582	93.02	.0602
57.14	.0596	100.00	.0488
62.50	.0621		

Perkin, 1886

mol%	d 15°	d 20°	d 25°
50	1.07472	1.06973	1.06472
100	1.05612	-	-

Lüdeking, 1886

%	d	%	d
	22°		
0	0.9978	40.0	1.0469
6.2	1.0029	45.4	.0493
7.7	.0061	52.6	.0548
10.0	.0091	62.5	.0613
14.3	.0170	69.0	.0638
18.2	.0223	76.9	.0653
25.0	.0269	86.9	.0626
29.4	.0317	100.0	.0442
35.7	.0402		

Noack, 1886

%	d	%	d
	20°		
14.82	1.01741	79.32	1.06759
29.90	.03627	85.48	.06608
44.85	.05105	89.82	.06358
64.85	.06449	94.70	.05833
69.85	.06642	98.52	.05120
74.77	.06732	99.35	.04955

Otten, 1887

%	d	%	d
	18°		
4.33	1.0050	58.32	1.0649
9.79	.0129	67.50	.0695
20.79	.0281	90.87	.0672
30.46	.0400	95.92	.0613
37.80	.0480		
49.37	.0586		

Le Blanc and Rohland, 1888 and 1896

%	d
	20°
0	0.99823
18.19	1.02368
18.70	.02452
40.33	.04869
100.00	.04954

Mohr, 1888

%	d	%	d
1	1.001	51	1.061
2	1.002	52	1.062
3	1.004	53	1.063
4	1.005	54	1.063
5	1.007	55	1.064
6	1.008	56	1.064
7	1.010	57	1.065
8	1.012	58	1.066
9	1.013	59	1.066
10	1.015	60	1.067
11	1.016	61	1.067
12	1.017	62	1.067
13	1.018	63	1.068
14	1.020	64	1.068
15	1.022	65	1.068
16	1.023	66	1.069
17	1.024	67	1.069
18	1.025	68	1.070
19	1.026	69	1.070
20	1.027	70	1.070
21	1.029	71	1.071
22	1.031	72	1.071
23	1.032	73	1.072
24	1.033	74	1.072
25	1.034	75	1.072
26	1.035	76	1.073
27	1.036	77	1.0732
28	1.038	78	1.0732
29	1.039	79	1.0735
30	1.040	80	1.0735
31	1.041	81	1.0732
32	1.042	82	1.073
33	1.044	83	1.073
34	1.045	84	1.073
35	1.046	85	1.073
36	1.047	86	1.073
37	1.048	87	1.073
38	1.049	88	1.073
39	1.050	89	1.073
40	1.051	90	1.073
41	1.051	91	1.0721
42	1.052	92	1.0716
43	1.053	93	1.0708
44	1.054	94	1.0706
45	1.055	95	1.070
46	1.055	96	1.069
47	1.056	97	1.068
48	1.058	98	1.067
49	1.059	99	1.0655
50	1.060	100	1.0635

Buchkremer, 1890

%	d	%	d
	20°		
0	0.99827	51.029	1.0583
5.216	1.0058	56.242	.0619
9.727	.0122	61.947	.0653
14.944	.0196	67.046	.0676
20.207	.0268	72.222	.0693
26.213	.0342	79.282	.0699
32.124	.0409	84.511	.0694
37.398	.0464	88.519	.0674
43.491	.0520	92.536	.0637
45.696	.0545	100	.0502

Turbaba, 1890 - 1893

%	d 0°	d 30°	%	d 0°	d 30°
59.92	1.08113	1.05502	79.13	1.08927	1.05938
71.98	.08758	.05907	80.20	.08925	.05915
76.16	.08878	.05941	81.58	.08929	.05901
77.92	.08911	.05940	85.99	.08843	.05735

Charpy, 1893

%	d	%	d
	0°		
0	0.9987	58.3412	1.0799
21.2324	1.0360	81.2354	.0896
39.4516	1.0614	89.6541	.0878

Humburg, 1893

%	d	%	d
	16°		
0	0.9990	18.204	1.0251
7.766	1.0109	39.077	.0508
12.780	1.0177	100	.0557

Oppenheimer, 1898

%	d
20°	
0	0.99813
16.37	1.02120
23.53	1.03060
30.50	1.03880

Friedländer, 1901

%	d
24.65°	
0	0.9972
59.60	1.0594
81.49	1.0403
99.85	1.0454

Rudorf, 1903

M	d	M	d
	25°		
0.0	0.9971	2.555	1.0174
.319	0.9997	5.111	.0355
.639	1.0021	10.222	.0605
1.277	1.0073		

Jones, 1904, Jones and Getman, 1904

%	d	%	d
	0°		
0.601	0.998540	29.00	1.034280
2.995	1.001800	34.57	.041316
5.968	.005348	40.10	.047336
11.85	.013028	45.66	.051372
17.63	.020912	56.48	.062204
23.51	.028636		

Drucker, 1905

c	d 25°	d 35°	c	d 25°	d 35°
0	0.99707	0.99409	51.82	1.05456	1.04740
2.175	1.00288	0.99690	65.24	.06482	.05243
5.991	.00780	1.00124	83.07	.06381	.05305
10.98	.01254	.00815	91.33	.05754	.04668
19.24	.02279	.01713	93.48	.05085	.04215
41.48	.04636	.03887			

Zecchini, 1905

%	t	d	%	t	d
3.4754	25.4	1.00189	65.9568	25.4	1.06180
9.6857	26.0	.01039	65.9768	25.6	.06184
9.6968	24.1	.01076	99.5375	25.7	.04349
21.3943	24.9	.02497			

Tsakalatos, 1908

%	d	%	d
	20°		
0	0.9982	71.2	1.068
22.3	1.026	77.9	.069
40.7	.046	85.6	.067
50.4	.055	100.0	.052
62.2	.064		

Grunmach, 1909

%	d	%	d
	24°		
0	0.9982	67.80	1.0679
10.6	1.0134	78.03	.0700
20.3	.0265	87.60	.0676
43.9	.0522	97.50	.0561
50.22	.0576	99.70	.0503

Dunstan and Thole, 1909

%	d 20°	d 25°	d 30°
0.00	0.9983	0.9972	0.9958
19.88	1.0260	1.0233	1.0209
35.17	.0433	.0401	.0377
60.80	.0648	.0602	.0557
80.00	.0699	.0647	.0596
99.15	.0522	.0466	.0407

Guerdjikova, 1910

%	d	%	d
	25°		
12.868	1.0111	66.640	1.0637
30.444	.0364	97,120	.0437
48.577	.0534		

Wilson and Sidgwick, 1913

N	d
18°	
0	0.9986
1.980	1.0149
5.6658	1.0414

Mathews and Cooke, 1914

t	d	t	d
0	1.0889	55	1.0346
25	.0642	70	.0190
40	.0492		

Herz, 1918

%	d	%	d
	20°		
2.1	1.0014	10.8	1.0140
5.7	.0067	19.6	.02566

Rabinowitsch, 1921

%	d	%	d
	18°		
5	1.0058	60	1.0655
10	.0133	70	.0685
20	.0257	80	.0690
30	.0393	90.87	.0672
40	.0496	95.92	.0613
50	.0600	99.70	.0485

Carstens, 1924

%	d	%	d
18°			
0	0.9986	52.57	1.0610
9.20	1.0121	68.00	.0697
16.07	.0217	81.10	.0648
28.16	.0373	99.37	.0537
40.00	.0502		

Faust, 1926

22° 50 mol % d = 1.0666

Kohner and Gressmann, 1927

wt%	mol%	d	wt%	mol%	d
25°					
11.7012	3.62	1.01298	74.027	44.68	1.06458
24.5360	8.38	.02891	84.654	60.99	.06366
39.1935	15.44	.04438	97.303	91.05	.04875
49.595	21.81	.05302	99.105	96.50	.04687
66.632	36.14	.06258			

Atsuki and Ishii, 1931

%	d	%	d
20°			
5	1.0058	50	1.0600
10	.0133	60	.0655
20	.0257	70	.0678
30	.0393	80	.0690
40	.0496	99.7	.0485

Thomas and Perman, 1934

%	d	%	d
30°			
10.0	1.005	42.6	1.036
20.5	.016	57.3	.046
30.7	.026		

Gibson, 1935

%	d	%	d
25°			
0.00	0.9970	50.53	1.0539
6.81	1.0065	69.18	.0634
11.62	.0127	79.37	.0647
16.89	.0197	39.80	.0607
31.16	.0363	94.33	.0559
41.17	.0462	99.50	.0448

Spells, 1936

%	d	%	d
15°			
0	0.9992	60	1.0685
10	1.0142	70	.0733
20	.0214	80	.0748
30	.0412	90	.0713
40	.0523	100	.0553
50	.0615		

Waring, Steingiser and Hyman, 1943

mol%	d	mol%	d
25°			
0.0	0.9971	45.15	1.0627
10.75	1.0271	59.08	.0645
19.19	.0477	83.05	.0538
26.21	.0538	99.08	.0441
33.37	.0596		

Guillaume, 1946

%	d	%	d
20°			
7.20	1.0104	30.80	1.0407
14.55	1.0207	100	1.0517

Roloff, 1895

%	t	d (sat.sol.)
0	0	1.000
1,23	- 0.406	.002
2.44	- 0.795	.004
7.50	- 2.425	.013
8.07	- 2.641	.014
11.85	- 3.910	.019
18.81	- 6.43	.029
20.95	- 7.24	.031
27.84	- 9.78	.041
34.23	-12.62	.049
37.60	-14.01	.053
40.31	-15.22	.057
47.54	-18.39	.065
51.80	-20.79	.070
53.83	-22.30	.075
57.52	-24.34	.076
60.21	-25.90	.076
62.14	-27.47	.080

Turbaba, 1890 - 1893

mol %	$a.10^7$	$b.10^9$	mol %	$a.10^7$	$b.10^9$
1	258	5373	4	1850	4221
2	860	4914	8	3468	3356

V_t (0 - 30°) = 1 + at + bt^2

Drucker, 1905

%	π(1-100atm)	%	π(1-100atm)
25°		35°	
0	47.0	0	46.3
6.85	46.4	6.85	45.3
20.13	45.8	20.13	45.3
41.30	45.8	96.25	96.0
59.96	52.4		
74.42	62.7		
81.10	68.0		
96.25	90.7		

Carstens, 1924

%	π	%	π
18°			
0	49.1	52.57	50.0
9.20	46.7	68.00	57.2
16.07	46.0	81.10	67.4
28.16	45.0	99.37	91.3
40.00	46.5		

Thomas and Perman, 1934

%	π (0-100atm.)
30°	
10.0	43.3
20.5	41.7
30.7	39.5
42.6	38.1
57.3	35.1

Gibson, 1935

%	π	%	π
25°			
0.00	39.35	50.53	39.98
6.81	38.27	69.18	44.35
11.62	37.77	79.37	48.06
16.89	37.56	89.80	53.69
31.16	37.53	94.33	57.15
41.17	38.49	99.50	63.34

Viscosity and surface tension .

Wijkander, 1878

%	η 13°	20°	30°	40°	50°
97.9	1906	1640	1350	1127	967
94.3	2671	2222	1752	1421	-
89.2	3106	2549	1981	1575	1287
87.0	3187	2601	2009	1595	1304
84.7	3303	2682	2069	1626?	1327
82.8	3330	2694	2070	1643	1324
80.4	3354	2726	2093	1635	1327
78.6	3360	2727	2079	1640	1327
76.7	3388	2739	2091	1643	1316
76.1 ?	3322	2701	2052	1618	1314
75.6	3355	2708	2073	1623	1287
72.3	3314	2664	2038	1603	1297

Noack, 1886

t	η 0%	14.82%	29.90%	44.85%	64.85%
0	1800.0	2472.8	3215.4	3911.4	4975.1
5	1513.6	2062.6	2680.2	3286.2	4084.9
10	1298.7	1754.7	2272.2	2772.0	3427.0
15	1131.9	1515.6	1952.5	2373.6	2921.5
20	998.9	1325.4	1697.2	2058.4	2531.7
25	890.5	1171.1	1490.0	1804.2	2215.8
30	800.8	1043.8	1318.8	1595.4	1958.2
35	725.3	937.3	1176.2	1421.9	1744.3
40	660.9	847.1	1055.7	1275.8	1565.2
45	605.5	770.0	953.2	1151.7	1413.3
50	557.4	703.3	865.1	1045.1	1282.7
55	515.3	645.4	788.6	953.0	1170.5
60	478.1	594.5	722.1	872.8	1072.4
	69.85%	74.77%	79.32%	85.48%	89.82%
0	5091.6	5143.6	5232.9	4889.9	4403.2
5	4237.2	4323.4	4380.2	4113.2	3767.0
10	3579.5	3656.2	3711.9	3505.1	3244.6
15	3068.4	3156.6	3180.6	3020.3	2812.2
20	2657.5	2737.5	2754.0	2628.1	2454.8
25	2324.4	2394.2	2405.0	2306.6	2156.1
30	2050.0	2109.3	2116.5	2040.4	1805.9
35	1821.2	1871.6	1876.6	1817.3	1694.6
40	1628.9	1671.0	1674.3	1628.4	1515.0
45	1465.6	1500.7	1503.0	1467.3	1361.3
50	1325.8	1354.5	1356.0	1328.6	1229.0
55	1204.9	1228.3	1229.3	1209.1	1114.8
60	1099.9	1118.9	1119.5	1104.6	1015.1
	94.70%	98.52%	99.35%	99.75%	99.80%
0	3534.9	2380.8	2172.2	1741.0	1725.8
5	2951.7	2047.5	1894.2	1603.6	1598.8
10	2526.6	1795.8	1685.7	1480.2	1480.5
15	2198.8	1599.3	1511.9	1367.4	1370.6
20	1938.8	1442.4	1368.3	1265.0	1268.0
25	1727.2	1313.4	1247.8	1172.2	1174.4
30	1552.6	1206.2	1143.9	1087.9	1088.4
35	1406.3	1115.0	1056.8	1011.3	1009.6
40	1281.4	1037.0	980.0	941.9	937.9
45	1174.4	969.3	912.6	878.1	872.3
50	1081.5	910.0	853.0	821.0	812.5
55	1000.1	857.6	799.9	768.4	757.9
60	928.4	811.1	752.4	720.4	708.0

D'Arcy, 1889

t	$\eta(H_2O=1)$	t	$\eta(H_2O=1)$	t	$\eta(H_2O=1)$
99.1%		81.08%		73.17%	
21	1.21	20	2.63	19.8	2.61
29.7	1.06	30	2.02	29.9	1.99
39.4	0.921	40	1.59	40.1	1.56
57.3	.740	48.5	1.34	49.3	1.29
49.4	.810	61.3	1.06	58.5	1.09
67.3	.662	72.5	0.889	68.4	0.925
82.5	.566	78.1	0.815	81.7	0.755
93.8%		78.95%		68.19%	
20	1.91	20.2	2.62	19.6	2.57
29.9	.54	29.9	2.03	29.5	1.98
39.4	.28	39.5	1.62	40	1.54
49.5	.07	49.7	1.31	50.2	1.25
58.1	0.915	59.4	1.11	59	1.06
69.5	.794	67.7	0.96	70.1	0.88
82.2	.678	78.3	0.815	84.9	0.711
88.24%		76.92%		62.5%	
20.1	2.41	20.1	2.62	19.9	2.40
29.85	1.89	29.6	2.03	30.5	1.81
39.5	1.52	40.1	1.59	40	1.45
49.9	1.24	49.5	1.31	50.5	1.17
59.5	1.05	59.6	1.09	57.6	1.02
65.7	0.812	69.7	0.92	68.6	0.848
76.2	0.953	81.2	0.772	78.7	0.733
83.33%		75%		0%	
22.7	2.40	20.7	2.57	21.4	0.966
30.2	2.01	30.3	1.99	30.3	.799
40.3	1.58	39.4	1.60	40.7	.656
50.1	1.29	49.8	1.29	53.3	.540
59.8	1.09	57.8	1.11	60.1	.497
71.9	0.894	68	0.934	73.6	.427
79.0	0.807	84	0.736	78.3	.408

Friedländer, 1901

%	η
25°	
0	901
59.60	2103
81.49	2322
99.85	1175

Rudorf, 1903

M	η	M	η
25°			
0.0	895	2.555	1118
.319	918	5.111	1351
.639	945	10.222	1825
1.277	994		

Dunstan, 1904 and 1905

%	η	%	η
25°			
0	891.0	71.96	2301
32.10	1437	72.04	2333
49.44	1824	78.16	2374
49.74	1867	81.66	2321
56.99	1986	98.60	1223
61.86	2103	100.00	1150
68.85	2227		

Tsakalotos, 1908

%	η	%	η
20°			
0	1002	71.2	2617
22.3	1502	77.9	2716
40.7	1930	85.6	2344
50.4	2188	100.0	1286
62.2	2404		

Dunstan and Thole, 1909

%	η 20°	η 25°	η 30°
0.00	1002	891	798
19.88	1407	1234	1099
35.17	1742	1529	1361
60.80	2392	2077	1842
80.00	2675	2319	2064
99.15	1338	1223	1140

Wilson and Sidgwick, 1913

N	η (water=1)
18°	
1.9801	1.2366
5.6658	1.7042

Bingham, White and al., 1913

t	η 100 %	75 %	50 %	25 %	0 %
25	1148	2376	1893	1359	895.3
35	991.0	1849	1477	1074	722.0
45	865.0	1482	1188	870.3	601.3
55	760.5	1211	976.5	726.2	507.9
65	676.1	1011	821.6	615.0	436.8
75	607.5	856.9	700.7	529.6	380.7
85	564.5	741.8	603.1	461.7	335.6
95	489.5	642.3	530.2	405.7	299.7

Mathews and Cooke, 1914

t	η
	78%
0	5064
25	2332
40	1569
55	1176
70	917.4

Davis and Jones, 1915 and Davis, 1918

%	η 15°	η 25°	%	η 15°	η 25°
0	1134	891	70	2935	2219
10	1368	1059	80	3068	2318
20	1626	1244	85	3033	2292
30	1897	1446	90	2786	2115
40	2143	1624	95	2243	1775
50	2416	1818	100	1410	1174
60	2682	2015			

Rabinowitsch, 1921

%	η (acid=1)	%	η (acid=1)
	18°		
1	0.82	60	1.949
5	.886	70	2.174
10	.979	80	2.222
20	1.171	90.87	1.901
30	.379	95.92	1.484
40	.564	99.70	1.003
50	.752	100.00	1.000

Swearingen and Heck, 1934

mol%	η 35°	η 45°	η 55°	η 65°	η 75°	η 80°
0	718	597	507	436	380	357
20	1303	1095	900	760	648	595
40	1768	1403	1132	932	783	724
50	1847	1449	1180	980	827	759
55	1848	1450	1182	982	828	760
60	1850	1433	1163	974	820	752
80	1524	1226	1030	877	747	692
100	1012	853	746	660	582	540

Spells, 1936

%	η	%	η
	15°		
0	1134	60	2682
10	1368	70	2935
20	1626	80	3068
30	1897	90	2786
40	2143	100	1410
50	2416		

Glagoleva, 1946

%	η 20°	η 30°
0	1006	812.1
16.00	1342	-
29.40	1660	1262
48.60	2126	1638
52.40	2150	1665
55.67	2284	1711
56.90	2315	1760
60.93	2344	1801
63.80	2446	1909
70.80	2568	1995
75.50	2658	2040
78.00	2682	2073
82.00	2681	2083
92.00	2541	2001
99.40	1330	1139

Vitagliano and Lyons, 1956

N	D	N	D
	25°		
17.3504	1.075	17.1975	0.947
17.3258	.020	17.0938	.825
17.3047	.013	16.8918	.762
17.2826	0.9686	15.8642	.556

Musculus, 1865

%	capillary rise	%	capillary rise
	15°		
0	1.000	16	0.699
2	0.920	18	.679
4	.860	20	.664
6	.822	24	.638
8	.789	26	.627
10	.765	28	.616
12	.743	30	.605
14	.721		

Forch, 1899

M (18°)	t	σ
0.00268	18.05	72.85
0.0450	18.33	71.78
1.177	18.12	69.09
1.075	15.92	58.82
3.58	18.11	46.86
10.78	17.60	36.34

M = 1.075   20.21° (τ = 0.0013)

Whatmough, 1902

%	σ	%	σ
	18°		
0	74.16	55	38.73
5	61.17	70	36.37
15	51.55	75	34.90
25	46.89	80	33.51
30	45.02	85	32.12
35	43.55	90	30.84
40	42.45	95	29.32
45	41.05	100	27.56

Drucker, 1905

c	σ	
	25°	35°
2.175	66.20	65.35
5.991	59.85	59.05
10.980	53.50	53.05
19.240	48.55	47.90
41.480	40.75	39.95
51.82	38.35	37.75
65.24	35.65	34.80
83.07	31.60	30.85
91.33	29.35	28.55
93.48	28.25	27.40

Grunmach, 1909

%	σ	%	σ
	20°		
0	75.23	67.80	31.45
10.6	56.63	78.03	28.26
20.3	48.30	87.60	26.98
43.9	35.27	97.50	24.97
50.22	35.01	99.70	23.11

Morgan and Neidle, 1913

%	σ	%	σ
	30°		
0.000	71.030	40.11	39.374
1.000	67.756	49.96	37.109
2.475	63.995	60.05	35.035
5.001	59.435	69.91	33.099
10.01	53.500	79.88	31.026
14.98	49.451	90.04	28.677
20.09	46.455	100.00	25.725
30.09	42.269		

t	σ				
	0%	25%	50%	75%	100%
10	74.01	45.763	38.684	33.819	-
20	72.53	44.956	37.878	32.916	26.701
30	71.03	44.148	37.071	32.014	25.733
40	69.54	43.340	36.265	31.112	24.764

Faust, 1926

22°   50 mol %   σ = 34.0

Bennett, 1929

%	σ	%	σ
	20°		
0	111.0	41.2	65.8
2.1	100.5	51.2	62.5
4.2	95.7	61.2	59.7
8.4	88.0	71.0	56.5
12.5	83.2	80.8	53.3
16.8	78.7	90.4	50.0
20.8	76.0	100	45.0
31.0	70.5		

In arbitrary units .

Glagoleva, 1947

%	σ 20°	σ 30°
0	72.53	71.03
16.03	47.68	45.90
29.40	41.50	39.40
48.60	36.20	32.70
52.46	35.10	32.30
55.24	34.62	31.40
56.90	34.20	31.30
60.93	33.70	31.00
63.80	32.30	29.30
70.80	31.70	28.75
75.40	30.73	27.50
75.50	30.73	27.40
78.00	29.01	26.20
82.30	28.27	25.50
92.68	25.40	22.60
99.50	22.42	18.83

Optical and electrical properties

Le Blanc and Rohland, 1889 and 1896

%	n_D
20°	
0	1.33325
18.19	.34619
18.70	.34658
40.38	.36039
100.00	.37255

Buchkremer, 1890

%	n_D	%	n_D
20°			
0	1.33313	51.029	1.36590
5.216	.33684	56.242	.36858
9.727	.34012	61.947	.37113
14.944	.34380	67.046	.37313
20.207	.34741	72.222	.37496
26.213	.35138	79.282	.37664
32.124	.35522	84.511	.37722
37.398	.35843	88.519	.37717
43.491	.36209	92.536	.37640
45.696	.36362	100.000	.37265

Gerber, 1892

%	D n_D (sol-aq.)	%	D n_D (sol-aq.)
20°			
0	0	39.6	0.0269
19.9	0.0072	49.5	0.0319
19.8	0.0144	59.4	0.0359
29.7	0.0209	79.2	0.0430

Zecchini, 1903

t	%	n_D	t	%	n_D
25.4	3.4754	1.33507	25.4	65.9568	1.37111
26.0	9.6857	.33908	25.6	65.9768	.37099
24.1	9.6968	.33921	25.7	99.5375	.36975
24.9	21.3943	.34649			

Wagner, 1903

%	n_D	%	n_D
0	1.33320	24.039	1.35021
0.513	.33358	24.644	.35058
1.026	.33397	25.229	.35095
1.538	.33435	25.814	.35132
2.051	.33474	26.400	.35169
2.564	.33513	26.985	.35205
3.085	.33551	27.570	.35242
3.606	.33590	28.155	.35279
4.127	.33628	28.740	.35316
4.648	.33667	29.325	.35352
5.169	.33705	29.910	.35388
5.690	.33743	30.520	.35425
6.211	.33781	31.130	.35461
6.732	.33820	31.740	.35497
7.253	.33858	32.350	.35533
7.774	.33896	32.960	.35569
8.299	.33934	33.570	.35606
8.824	.33972	34.180	.35642
9.349	.34010	34.790	.35678
9.874	.34048	35.400	.35714
10.399	.34086	36.010	.35750
10.924	.34124	36.630	.35786
11.449	.34162	37.250	.35822
11.974	.34199	37.870	.35858
12.499	.34237	38.490	.35894
13.624	.34275	39.110	.35930
13.567	.34313	39.730	.35966
14.109	.34350	40.350	.36002
14.652	.34388	40.970	.36038
15.194	.34426	41.590	.36074
15.737	.34463	42.210	.36109
16.279	.34500	42.858	.36145
16.822	.34537	43.506	.36181
17.364	.34575	44.154	.36217
17.907	.34612	44.802	.36252
18.449	.34650	45.450	.36287
19.010	.34687	46.098	.36323
19.571	.34724	46.746	.36359
20.132	.34761	47.394	.36394
20.693	.34798	48.042	.36429
21.254	.34836	48.690	.36464
21.815	.34873	49.365	.36500
22.376	.34910	50.040	.36535
22.937	.34947	50.715	.36571
23.498	.34984		

Grünmach, 1909

%	Dn .10^5 $n_F - n_C$
43.90	647
50.22	658
67.80	673
78.03	684
87.6	676
97.5	677
99.7	663

%	n_D
	20°
43.90	1.36161
50.22	.36415
67.80	.37363
78.03	.37563
87.6	.37691
97.5	.37471
99.7	.37266

Guerdjikova, 1910

%	n_D
	25°
0	1.33255
12.868	.34170
30.444	.35350
48.577	.3640
66.640	.3724
97.120	.3701

Elsey and Lynn, 1923

%	n_D	%	n_D
	25°		
2.48	1.33427	19.33	1.34579
4.52	.33569	21.07	.34694
6.69	.33720	23.32	.34838
8.51	.33848	25.00	.34949
10.74	.34001	26.90	.35068
13.23	.34172	28.85	.35187
15.24	.34308	28.93	.35226
18.06	.34493		

Kohner and Gressmann, 1927

wt %	mol %	$n_{He\ y}$
	25°	
11.7012	3.62	1.34068
24.5360	8.38	.34926
39.1935	15.44	.35810
49.5950	21.81	.36366
66.6320	36.14	.37117
74.027	44.68	.37359
84.654	60.99	.37550
97.303	91.05	.37269
99.105	96.50	.37089

Waring, Steingiser and Hyman, 1943

mol%	n_D	mol%	n_D
	25°		
0.0	.3325	45.15	1.3734
10.75	.3522	59.08	.3764
19.19	.3635	83.05	.3754
26.21	.3655	99.08	.3700
33.37	.3700		

Guillaume, 1946

%	t	n_{5780}
7.20	20	1.3394
14.55	18.5	.3452
30.80	20	.3546
100.00	20	.3763

Perkin, 1886

50 mol % 18° (α) = 0.8801

Humburg, 1893

%	$(\alpha)^{mol}_{magn.}$	%	$(\alpha)^{mol}_{magn.}$
	16°		
0	1.000	18.204	2.451
7.766	2.487	39.077	2.4593
12.780	2.405	100.000	2.4746

Oppenheimer, 1898

%		$(\alpha)_{magn.}$
	20.5°	
16.37		0.761
23.53		.761
30.50		.762

Guerdjikowa, 1910

%	$(\alpha)^{mol.}_{magn.}$	%	$(\alpha)^{mol.}_{magn.}$
	25°		
0	5.068	48.577	4.499
12.868	4.782	66.640	4.312
30.444	4.745	97.120	3.823

Guillaume, 1946

%	t	$(\alpha)^{*}_{5780}.10^6$
7.20	20	3.916
14.55	18.5	.851
30.80	20	.701
100.00	20	.013

*in radians, gauss, centim.

Kohlrausch, 1876

%	κ	τ
0.30	3.15	-
1.05	5.95	-
5.00	12.20	0.0163
10.04	15.81	.0169
20.00	15.99	.0179
29.93	13.97	.0186
39.97	10.87	.0196
47.80	8.08	.0192
61.40	4.18	.0208
76.40	1.24	.0210
99.70	0.0004	-

Otten, 1887

%	κ	$a\,10^5$	$b.10^8$
	0°		
4.33	7.973	2887	-9173
9.79	9.983	2936	-8453
20.79	10.547	3009	-6589
30.46	8.957	3065	-5578
37.80	7.284	3237	-12094
49.37	4.881	3063	+122
58.32	3.133	3099	+797
67.50	1.775	3330	+776
90.87	1.355	4360	-8124

Whetham, 1897

%	κ	%	κ
		18°	
100.0	0.0141	60.21	5.222
97.85	.0314	53.16	7.27
95.78	.0588	47.59	9.28
93.80	.0881	43.07	10.76
91.90	.1396	33.53	14.08
90.08	.2015	24.49	16.48
88.33	.2355	15.86	17.07
85.02	.5073	11.78	16.08
81.95	.8013	7.75	14.86
75.17	1.7360	3.88	11.37
69.42	2.8360	1.94	8.39

Jones, 1904 and Jones and Getman, 1904

M	λ	M	λ
	0°		
0.1	3.07	5.0	0.19
0.5	1.33	6.0	.14
1.0	0.85	7.0	.10
2.0	0.52	8.0	.07
3.0	0.35	10.0	.04
4.0	0.25		

Grünmach, 1909

%	κ	τ.10^5
	20°	
43.90	9.748	1972
50.22	7.492	2008
67.80	2.621	2082
78.03	0.9528	2105
87.60	0.2154	2115
97.50	0.01562	2118
99.60	0.000542	2118

Wilson and Sidgwick, 1913

N	κ	N	κ
	18°		
0.002807	0.7597	0.1702	5.990
.004462	0.9590	0.4480	9.462
.007703	1.2700	0.8118	12.11
.02246	2.1870	1.599	15.04
.03470	2.7220	2.939	16.38
.07273	3.9100	4.143	15.76

Rabinowitsch, 1921

%	κ	%	κ
	18°		
0.3	3.18	60	4.56
1	5.84	70	2.35
5	12.25	80	0.81
10	15.26	90.87	0.24
20	16.05	95.92	0.004
30	14.01	99.70	0.0004
40	10.81		
50	7.40		

Tammann and Tofaute, 1929

t	1.0N	2.0N	4.0N	5.52N	10.19N
		(Dλ/λ).100			
		500Kg/cm²			
0	19.7	16.1	17.8	-	13.3
20	17.1	16.3	14.9	15.2	15.6
40	16.8	16.0	16.0	16.4	17.5
		1000Kg/cm²			
0	38.5	32.3	35.5	-	27.2
20	34.6	34.1	32.5	31.9	30.7
40	33.3	33.9	33.5	32.8	34.4
		1500Kg/cm²			
0	58.7	49.5	53.4	-	42.9
20	52.2	51.5	49.5	52.5	46.0
40	56.4	52.7	50.6	50.8	52.2
		2000Kg/cm²			
0	79.9	68.3	72.4	-	56.5
20	70.8	69.2	65.6	66.6	60.8
40	69.3	68.8	67.8	69.2	70.7
		2500Kg/cm²			
0	107.3	89.4	92.3	-	68.1
20	90.1	86.6	82.8	84.8	74.5
40	85.6	86.9	85.5	87.3	88.6
		3000Kg/cm²			
0	123.2	109.2	112.8	-	78.6
20	105.3	102.0	101.2	102.0	90.9
40	105.8	106.6	104.5	106.2	107.5

Eichelberger and La Mer, 1933

%	κ	%	κ	
	25°			
13.3	15.63	6.0	12.60	(two series)
17.8	16.11	10.1	14.92	
23.7	13.92	16.8	16.13	
31.6	13.33	21.0	15.88	
42.2	9.84	26.2	14.92	
56.2	5.37	32.8	13.12	
75.0	1.36	41.0	10.42	
100.0	0.00014	51.2	7.00	
		64.0	3.46	
		80.0	0.77	

Thwing, 1894

%	ε	%	ε
	15°		
0	75.50	70	39.48
30	64.20	74	36.62
40	61.79	77	36.87
50	60.80	80	22.90
60	60.80	100	10.30
62.5	61.25		
(2+1)		(1+1)	

Smith and Smith, 1918

%	χ
20°	
0	0.714
20.5	.680
40.0	.641
60.5	.596
80	.560
100	.520

Sibaiya and Venkataramiah, 1933

%	χ	%	χ
at room temp.			
0	0.720	70	0.553
10	.704	80	.565
50	.650	90	.577
60	.629	100	.580

Pacault and Chédin, 1950

%	χ	%	χ
15°			
0	0.720	60.0	0.607
10.7	.697	70.0	.589
19.9	.683	80.0	.568
30.0	.665	90.0	.548
41.3	.645	100.0	.528
50.0	.626		

Fénéant, 1952

Raman spectra (see author)

Heat constants.

Marignac, 1876

mol%	U	mol%	U
21 - 52°			
0.5	0.9874	3.9	0.9157
0.9	.9769	9.1	.8220
2.0	.9568	16.7	.7320

Reiss, 1880

%	U	%	U
70°			
0.0	1	59.0	0.7382
2.7	0.9998	62.0	.7217
5.4	.9906	64.5	.6977
10.8	.9692	67.0	.6890
19.3	.9308	70.3	.6784
29.1	.8854	77.6	.6440
38.0	.8349	82.0	.6171
47.0	.7929	85.0	.5901
50.0	.7777	87.8	.5639
53.0	.7708	93.2	.5395
56.0	.7538	100.0	.5118

Lüdeking, 1886

%	U	%	U
50 - 20°			
0	1	40.0	0.8047
6.2	0.9695	45.4	.7781
7.7	.9624	52.6	.7431
10.0	.9511	62.5	.6949
14.3	.9303	69.0	.6633
18.2	.9112	76.9	.6245
25.0	.8789	86.9	.5755
29.4	.8564	100.0	.5118
35.7	.8256		

Sandonnini, 1913

%	U	%	U
16-18°			
3.33	0.996	50.03	0.777
7.47	.986	64.86	.708
14.39	.952	69.39	.687
21.13	.922	79.42	.633
29.69	.880	94.31	.532
34.02	.845	97.03	.520
46.43	.795		

Bury and Davies, 1932

%	U	%	U
	15.5-16.5°		
5.205	0.9801	24.40	0.3946
10.21	.9602	29.67	.3686
15.01	.9399	34.22	.3432
19.76	.9194		

Bussy and Buignet, 1864

%	t	Dt
33.5 mol %	17.1	-2.50
50 vol %	16.0	-1.20

Faucon, 1910

%	Q mix.	%	Q mix.
93	-56.00	53	-26.82
85	-79.95	40	-12.25
80	-78.30	30	+1.88
75	-70.63	20	+4.68
70	-61.54	10	+2.98
63	-44.21	5	+1.66

Sandonnini, 1913

%	Q mix cal/100gr.	%	Q mix cal/100gr.
	16-18°		
3.38	+19.3	50.03	-92.7
7.47	+36.6	64.36	-142.1
14.39	+43.4	69.39	-183.0
21.13	+47.5	79.42	-192.4
29.69	+17.5	94.31	-147.9
34.02	+4.7	97.03	-34.1
46.43	-71.7		

Water + Propionic acid ($C_3H_6O_2$)

Heterogeneous equilibria

Konovalov, 1881

t	p	t	p	t	p
24.92%		49.37%		75.68%	
16.85	14.1	15.95	12.8	17.3	13.75
46.85	76.6	46.35	73.25	46.7	69.6
62.90	167.7	64.0	173.8	63.4	151.4
81.25	370.8	70.2	229.5	81.45	336.7
99.25	746.9	81.5	379.3	99.6	676.35
		90.0	528.6		
		99.5	739.6		

Othmer, 1943

% L	% V	b.t.
100	100	141.4
98	90.0	138.0
95	88.0	117.2
90	63.0	109.0
80	45.5	104.2
70	44.0	102.2
60	25.1	101.1
50	19.5	100.4
40	15.6	100.0
30	12.5	99.7
20	9.7	99.1
10	6.8	99.6
5	5.2	99.8
2	2.7	99.9
0	0.0	100.0

Lecat, 1949

%	b.t.	Dt min.	
17.7	99.98	+0.45	Az
100.0	141.30		

Abegg, 1894

M	f.t.
0.866	-1.61
1.732	-3.235
3.292	-5.86
4.415	-7.36

Ballo, 1910

%	f.t.	%	f.t.
0	0	78.85	-23.7
20.33	-3.4	84.82	-28.3
33.63	-6.5	90.62	-28.2
42.22	-8.5	95.08	-26.7
49.36	-8.8	97.15	-24.8
57.37	-10.0	98.66	-23.6
64.61	-13.6	98.96	-23.6
70.14	-16.5	100.00	-23.6

Faucon, 1910

mol%	f.t.	mol%	f.t.
0.00	0.00	70.00	-16.20
4.98	-1.33	73.48	-17.20
10.11	-2.60	80.25	-20.20
15.00	-3.76	81.75	-21.00
19.42	-4.70	85.00	-27.90
25.00	-6.10	86.85	-29.10
29.68	-6.70	87.65	-29.40
35.28	-7.70	89.12	-28.30
39.85	-8.30	90.85	-27.60
45.20	-9.20	92.40	-26.90
50.00	-10.10	94.75	-25.40
59.92	-12.50	97.22	-23.90
65.88	-14.20	99.09	-21.40
		100.00	-19.30

Jones and Bury, 1927

m	f.t.	m	f.t.
0.2936	-0.544	1.789	-2.978
.3126	.577	2.093	3.411
.4211	.771	.134	.474
.5271	.955	.352	.771
.5686	1.025	.482	.948
.6606	.187	.676	4.196
.8964	.582	.814	.357
.9987	.756	.873	.436
1.148	.994	3.074	.673
.135	2.068	.287	.919
.301	2.238	.412	5.054
.490	2.531	.869	5.528
.639	-2.753	.933	-5.583

Hansen, Miller and Christian, 1955

mol%	lg a	mol%	lg a
0	0	60	0.19
20	0.05	80	0.44
40	0.14	100	0.80

a = activity coefficient

Properties of phases

Lüdeking, 1886

%	d	%	d
25°			
0	0.9971	17.0	1.0113
3.3	1.0000	21.5	.0130
3.6	.0003	29.1	.0165
3.9	.0004	33.9	.0184
4.4	.0008	40.6	.0204
4.8	.0012	45.1	.0207
5.6	.0018	50.7	.0220
6.4	.0026	57.8	.0195
7.6	.0039	67.3	.0182
8.3	.0038	73.3	.0167
9.3	.0045	80.4	.0128
10.5	.0055	89.1	0.9947
12.0	.0065	100.0	0.9873
14.1	.0082		

Perkin, 1886

mol%	d
15°	
100	0.99746
50	1.02389

d	
4°	25°
50mol%	
1.03448	1.01450

Otten, 1887

%	d	%	d
18°			
1.001	1.0017	30.034	1.0239
5.011	.0055	50.892	.0293
10.078	.0098	69.991	.0276
15.049	.0144	90.481	.0141
20.024	.0180	100	0.9980

Charpy, 1893

%	d	%	d
0°			
0	0.9987	66.7226	1.0414
17.0822	1.0156	83.3827	1.0432
33.5060	1.0259	100	1.0372
49.8829	1.0349		

Humburg, 1893

%	d
16°	
0	0.9990
10.332	1.0085
35.5575	1.0253
100	0.9973

Le Blanc and Rohland, 1896

%	d
20°	
0	0.9982
12.92	1.0074
14.69	1.0111

Drude, 1897

%	d	%	d
17°			
0	0.9988	86.0	1.0185
50.3	1.0283	89.9	.0140
56.3	.0285	92.9	.0103
62.5	.0281	96.1	.0050
68.5	.0277	97.5	.0026
74.4	.0258	99.0	0.9994
80.0	.0231	100.0	0.9969

Drucker, 1905

c	d 25°	d 35°	c	d 25°	d 35°
0	0.99707	0.99409	21.71	1.01387	1.00844
0.9383	.99787	.99469	49.80	.02266	.01449
1.914	.99877	.99551	73.92	.02174	.01027
5.842	1.00205	.99831	99.99	0.98958	0.97876
9.824	1.00552	1.00131			

Zecchini, 1905

t	%	d
19.9	8.0930	1.00580
19.8	23.7180	.01750
19.6	62.1330	.02511
18.7	68.2130	.02424
18.7	98.0120	0.99403
19.8	97.7850	.99382

Tsakalatos, 1908

%	d	%	d
20°			
0	0.9982	79.8	1.020
34.6	1.022	90.0	1.012
68.9	.025	100.0	0.9945
74.2	.023		

Turbaba, 1890

mol%	$a.10^7$	$b.10^9$
1	262	5533
2	940	5130
4	2120	4431

V_t (0 - 30°) = $1+at+bt^2$

Tsakalotos, 1908

%	η	%	η
20°			
0	1003	79.8	2973
34.6	1982	90.0	2622
68.9	2752	100.0	1114
74.2	2794		

Drucker, 1905

c	σ 25°	σ 35°
0.9883	65.40	64.50
1.914	60.60	59.80
5.842	49.75	40.35
9.824	44.50	43.80
21.71	36.90	36.40
49.80	32.15	31.65
73.92	30.10	29.50
99.99	26.05	25.20

Damien, 1881

%	n Hα	n Hβ	n Hγ
		20°	
0	1.33108	1.33706	1.34035
10.81	.33911	.34557	.34930
20.72	.34637	.35282	.35656
30.77	.35321	.36024	.36413
41.49	.35878	.36569	.36972
51.81	.36374	.37070	.37478
57.14	.36594	.37272	.37653
62.50	.36835	.37520	.37915
68.97	.37120	.37810	.38203
72.73	.37271	.37975	.38355
76.92	.37473	.38169	.38550
81.63	.37563	.38245	.38636
86.96	.37624	.38300	.38696
93.02	.37431	.38121	.38493
100.00	.37022	.37680	.38507

Le Blanc and Rohland, 1896

%	n_D
20°	
0	1.3333
12.92	.3441
14.69	.3462

Drude, 1897

%	n_D	%	n_D
	19°		
0	1.3335	86.0	1.3891
50.3	.3730	89.9	.3899
56.3	.3764	92.9	.3897
62.5	.3798	96.1	.3891
68.5	.3830	97.5	.3885
74.4	.3858	99.0	.3879
80.0	.3878	100.0	.3872

Zecchini, 1905

%	t	n_D
8.0930	19.9	1.34044
23.7180	19.8	.35397
62.1330	19.6	.38004
68.2130	18.7	.38439
98.0120	18.7	.38819
97.7850	19.8	.38760

Perkin, 1886

50 mol% 19.40° (α)magn. = 0.9012

Otten, 1897

%	κ	a.10⁵	b.10⁸
	0°		
10.078	7.4137	2848	-6825
30.034	5.1546	3215	-3424
50.092	2.3005	3504	-527
69.991	0.5112	3520	+4153

$\kappa_t = \kappa_0\ (1+at+bt^2)$

Humburg, 1893

%		$(\alpha)^{mol}_{magn.}$
0	16°	1.000
10.332		3.455
35.5575		3.4229
100		3.4833

Drude, 1897

%	ε	%	ε
	17°		
0	81.7	86.0	14.22
50.3	46.3	89.9	10.92
56.3	41.5	92.9	8.55
62.5	35.2	96.1	6.13
68.5	29.6	97.5	5.01
74.4	24.0	99.0	3.80
80.0	18.9	100.0	3.15

Heat constants

Lüdeking, 1886

%	U	%	U
	50 - 22°		
7.6	0.9639	45.1	0.7857
9.3	.9557	50.7	.7592
12.0	.9427	57.8	.7254
17.0	.9190	67.3	.6805
21.5	.8978	73.3	.6520
29.1	.8616	80.4	.6179
33.9	.8388	89.1	.5765
40.6	.8069	100.0	.5227

Bury and Davies, 1932

%	U	%	U
	13.5 - 16.5°		
3.534	0.9922	19.33	0.9474
7.072	.9855	22.59	.9336
10.00	.9776	25.38	.9199
12.08	.9713	30.21	.8971
16.03	.9590		

Faucon, 1910

%	Q mix	%	Q mix
	8°		
5	-299.1	70	-627.3
9.7	301.7	80	588.1
22	353.5	85	546.5
30	427.7	90	479.4
50	561.5	95	-334.5
60	-603.5		

Water + Butyric acid ($C_4H_8O_2$)

Heterogeneous equilibria

Othmer, 1943

mol%		mol%	
L	V	L	V
	at b.t.		
100	100	40	9.2
98	84.0	30	8.6
95	60.5	20	8.4
90	42.3	15	7.9
80	23.8	10	7.1
70	16.6	5	5.2
60	12.2	2	2.9
50	10.0	0	0.0

Faucon, 1910

%	p		
	0°	18.2°	58.7°
0	4.57	15.520	140.11
10	4.50	15.198	142.04
25	4.37	14.746	143.01
35	4.18	14.101	140.94
60	3.79	12.424	134.95
75	2.96	10.240	123.21
85	2.26	9.200	123.21
100	0.12	0.700	9.50

Konovalov, 1881

t	p	t	p	t	p
25.48%		50%		70.1%	
18.3	15.15	15.0	14.2	19.45	16.4
49.85	90.4	31.25	35.6	50.20	90.8
80.5	364.9	42.75	65.5	80.45	351.3
99.7	766.4	52.25	109.4	100.00	740.8
		60.35	152.3		
		70.3	237.3		
		79.6	350.8		
		99.0	741.1		

Ryland, 1899

%	b.t.
763mm	
20	99 - 99.5 Az
100	159 -160

Lecat, 1949

%	b.t.
91.6	99.4 Az
0	164

Rothmund, 1898

C.S.T. = -3.5°

Timmermans, 1906

%	sat.t.	%	sat.t.
23.33	-5.1	45.29	-2.3
27.69	-3.3	52.92	-3.5
34.91	-2.3	63.02	-6.9

Faucon, 1910

%	sat.t.	%	sat.t.
25.0	- 5.2	40.0	- 3.8
30.0	- 4.2	50.0	- 4.5
35.0	- 4.0	58.2	- 7.0

De Mol, 1925

%	sat.t.	f.t.	E
10.5	-	-2	-
15.4	-	-2.6	-
19.9	-	-2.7	-
22.3	-7.50	-2.7	-
22.7	-6.90	-2.7	-
23.4	-6.20	-2.7	-
24.9	-5.25	-2.7	-
27.3	-4.45	-2.7	-
31.6	-3.80	-2.7	-
35.0	-3.40	-	-
37.0	-3.30	-2.7	-
44.5	-3.20	-	-
51.0	-4.05	-2.8	-
54.0	-5.10	-	-
55.3	-5.40	-2.9	-
58.7	-7.20	-	-
61.9	-9.70	-3.1	-
64.8	-	-3.3	-
66.5	-	-3.4	-
70.2	-	-3.7	-
74.4	-	-4.8	-
76.3	-	-5.4	-
80.4	-	-7.5	-
87.0	-	-10.6	-12.10
87.5	-	-10.9	-12.10
88.4	-	-11.45	-12.10
90.0	-	-	-12.10
91.0	-	-11.3	-12.10
91.7	-	-10.6	-12.10
93.9	-	-9.2	-
100.0	-	-5.55	-

Howard and Patterson, 1926

C.S.T. : 26% -1.2° to -1.05°

Patterson, 1938

%	sat.t.	%	sat.t.
20.0	-6.70	35.9	-1.60
23.4	-3.20	36.9	-1.67
23.5	-2.20	37.5	-1.70
24.4	-2.18	40.5	-1.90
26.1	-2.05	43.4	-1.92
27.6	-1.80	46.1	-2.40
28.9	-1.70	52.0	-3.90
29.5	-1.65	54.6	-5.00
31.4	-1.60	55.7	-5.20
		67.6	-14.70

Ballo, 1910

%	f.t.	%	f.t.
0	0	89.24	-10.4
12.64	-1.45	92.86	-8.5
25.58	-1.7	97.32	-6.1
58.68	-1.7	98.20	-5.2
69.04	-2.4	99.30	-4.5
74.73	-3.6	100.00	-4.5
83.68	-7.1		

Faucon, 1910

%	f.t.	%	f.t.
0.00	0.00	80.00	-6.80
1.89	-0.42	84.00	-8.61
5.12	-1.08	85.41	-10.25
10.24	-2.13	86.02	-12.54
12.75	-2.70	86.92	-13.20
15.62	-2.77	87.62	-13.40
25.32	-2.96	90.08	-12.40
35.10	-2.98	94.63	-10.70
49.67	-3.02	95.92	-10.00
50.60	-3.07	97.24	-9.30
59.72	-3.14	98.60	-8.00
67.38	-3.57	99.15	-5.40
70.52	-4.12	99.50	-4.20
73.04	-4.80	100.00	-3.12
75.00	-5.20		

Jones and Bury, 1927

m	f.t.	m	f.t.
0.2826	-0.515	1.824	-2.675
.4213	0.758	1.958	.795
.5809	1.028	2.100	.888
.8160	.397	2.513	3.077
.9419	.587	3.632	.264
1.087	.799	3.688	.272
.252	2.023	4.802	.341
.465	.294	5.777	.389
.498	.331	9.437	.513
.593	.442	13.678	.649
.726	-2.584	17.722	-3.837

Kuznetsova and Bergman, 1956

mol%	f.t.	mol%	f.t.
0	0.0	63.0	-9.2
10.0	-2.0	65.0	-11.0
20.0	-2.5	67.5	-12.5
30.0	-2.7	70.0	-11.8
40.0	-3.5	80.0	-10.3
50.0	-5.0	85.0	-10.0
55.0	-5.8	90.0	-9.3
59.0	-7.7	99.06	-8.3

Hansen, Miller and Christian, 1955

mol%	lg a	mol%	lg a
0	0	60	0.32
20	0.08	80	0.55
40	0.19	100	0.85

a = activity coefficient

Properties of phases

Lüdeking, 1886

%	d	%	d
	25°		
0	0.9971	19.6	1.0017
4.1	.9987	24.6	.0015
4.4	.9989	32.8	.0002
4.9	.9991	37.9	0.9991
5.4	.9993	44.9	.9971
6.1	.9997	49.4	.9958
7.0	1.0000	55.0	.9936
8.1	.0005	62.0	.9909
9.8	.0007	70.9	.9857
10.9	.0009	76.5	.9824
12.2	.0015	83.0	.9780
14.0	.0015	90.7	.9697
16.3	.0016	100.0	.9521

Hartwig, 1888

%	d
18°	
9.68	1.0062
19.43	.0077
35.82	.0067
100.00	0.9620

Otten, 1887

%	d	%	d
	18°		
1.002	1.0012	30.040	1.0072
5.024	.0036	50.041	1.0035
10.067	.0061	70.014	0.9962
15.029	.0075	89.971	.9808
20.011	.0077	100.000	.9649

Humburg, 1893

%	d
16°	
0	0.9990
12.6299	1.0069
24.5020	.0056
35.0900	.0042
100	0.9633

Charpy, 1893

%	d	%	d
	0°		
0	0.9987	47.3670	1.0115
11.8823	1.0091	59.3432	.0100
23.6160	.0117	71.3156	.0042
35.5461	.0121		

Le Blanc and Rohland, 1896

%	d
	20°
0	0.9982
13.37	1.0032
17.09	1.0053

Drucker, 1905

c	d	
	25°	35°
0	0.99707	0.99409
0.1394	.99706	.99414
.3135	.99725	.99418
.7263	.99727	.99437
1.0460	.99750	.99442
2.2680	.99809	.99487
3.8330	.99880	.99543
8.6320	.99081	.99687
24.9600	1.00114	.99543
79.3800	0.98054	.97047
100	0.95356	.93566

Tsakalotos, 1908

%	d	%	d
	20°		
0	0.9982	74.6	0.9889
29.5	1.0060	82.2	.9856
49.0	0.9986	89.1	.9779
68.2	0.9933	100.0	.9652

Grindley and Bury, 1929

%	d				
	0°	12°	18°	25°	34.94°
0	0.99987	0.99953	0.99862	0.99707	0.99408
4.905	1.00379	1.00250	1.00122	0.99930	.99577
7.505	.00587	.00408	.00256	1.00038	.99657
10.01	.00785	.00546	.00371	.00127	.99713
11.74	.00912	.00631	.00436	.00173	.99736
13.94	.01045	.00707	.00491	.00207	.99745
15.59	.01124	.00746	.00517	.00214	.99738
17.39	.01177	.00766	.00522	.00207	.99714
19.21	.01218	.00777	.00521	.00196	.99688
20.86	.01240	.00781	.00516	.00179	.99657
23.85	.01264	.00769	.00489	.00135	.99594
26.93	.01274	.00748	.00453	.00082	.99520
30.07	.01277	.00719	.00409	.00021	.99435
35.05	.01270	.00662	.00327	0.99913	.99294
40.06	.01251	.00591	.00233	.99793	.99138
45.31	.01221	.00502	.00120	.99651	.98959
50.13	.01177	.00406	0.99996	.99506	.98781
54.09	.01130	.00314	.99887	.99374	.98622
58.08	.01066	.00210	.99767	.99234	.98453
60.23	.01026	.00145	.99692	.99147	.98356
61.93	.00986	.00090	.99629	.99078	.98272
63.32	.00954	.00045	.99578	.99016	.98206
66.00	.00880	0.99949	.99465	.98848	.98070
70.02	.00747	.99774	.99280	.98695	.97845
74.07	.00573	.99566	.99057	.98452	.97580
77.90	.00372	.99336	.98812	.98194	.97306
81.56	.00140	.99080	.98546	.97917	.97010
85.96	0.99801	.98711	.98163	.97521	.96598
90.95	.99310	.98191	.97626	.96968	.96030
95.62	.98715	.97561	.96983	.96312	.95351
100.00	.97844	.96642	.96045	.95356	.94367

Irany, 1944

vol%	mol%	d	vol%	mol%	d
		20°			
0.0	0.0	0.9982	70.1	31.6	0.9952
7.0	1.5	1.0052	83.0	49.7	.9860
15.2	3.4	1.0074	90.0	66.4	.9790
30.0	7.8	1.0068	100.0	100.0	.9630
50.0	16.5	1.0016			

Turbaba, 1890

mol%	$a.10^7$	$b.10^9$
1	370	5520
2	1184	4931
4	2758	3730

$v_t(0 - 30°) = 1+at+bt^2$

Tsakalotos, 1908

%	η	%	η
	20°		
0	1003	74.6	3576
29.5	2189	82.2	3404
49.0	3096	89.1	3015
68.2	3560	100.0	1585

Bury and Grindley, 1936

%	η 0°	12°	25°	35°
0	1794	1239	895	721
3.002	2020	1369	973	777
6.024	2271	1512	1065	844
9.070	2537	1665	1152	911
12.02	2815	1818	1248	979
14.97	3069	1966	1344	1048
17.49	3317	2112	1440	1120
20.12	3569	2284	1550	1201
23.73	3987	2521	1695	1308
27.93	4520	2815	1881	1445
31.78	4966	3077	2038	1563
36.33	5500	3361	2222	1695
39.81	5860	3572	2365	1796
42.87	6090	3730	2463	1873
45.14	6240	3844	2538	1932
50.10	6530	4070	2699	2049
55.0	6710	4245	2823	2150
60.3	6900	4394	2941	2243
65.2	7030	4528	3039	2322
69.8	-	4623	3121	2392
73.3	7100	4627	3129	2415
77.1	7040	4612	3126	2415
81.4	6830	4525	3095	2398
84.6	6540	-	3032	2358
85.8	6380	4295	-	-
88.8	6001	4079	2861	2248
90.8	5520	3813	2702	2142
95.6	4280	3060	2249	1819
100.0	2527	1946	1529	1295

%	η -3°	%	η -3°	0°
33.92	6220	59.8	7850	-
36.88	6630	68.1	8000	7090
38.98	6900	70.2	8020	7110
39.99	6990	72.3	8010	7110
41.45	7040	74.5	7970	7080
44.91	7260	78.9	7810	6970
49.95	7510	84.6	7310	6540

Irany, 1944

vol%	mol%	η	vol%	mol%	η
		20°			
0.0	0.0	1005	70.1	31.6	3710
7.0	1.5	1310	83.0	49.7	3600
15.2	3.4	1640	90.0	66.4	3250
30.0	7.8	2410	100.0	100.0	1780
50.0	16.5	3240			

Drucker, 1905

c	σ 25°	35°	c	σ 25°	35°
0	73.00	71.73	3.833	42.15	41.60
0.1394	70.36	69.24	8.632	33.35	32.75
.3135	65.75	65.00	24.960	28.40	28.00
.7263	60.50	59.45	79.380	27.35	27.17
1.0460	56.80	56.05	100.200	26.40	25.60
2.2680	48.10	47.55			

Le Blanc and Rohland, 1896

%	n_D
20°	
0	1.3333
13.37	1.0032
17.09	1.0053

Humburg, 1893

%	$(\alpha)^{mol}_{magn.}$
16°	
0	1.0000
12.6299	4.5021
24.5020	4.5222
35.0900	4.5506
100	4.5465

Otten, 1887

%	κ	a.10^5	b.10^8
	0°		
5.024	5.9579	2587	-8184
10.067	6.7215	2703	-8912
15.029	5.7934	3036	-10115
20.011	4.4948	3104	-7571
50.041	1.8757	3289	-5112
70.014	0.3348	3648	+2003

$\kappa_t = k_0 (1+at +bt^2)$

Hartwig, 1888

%	κ 0°	κ 18°	κ 30°
9.68	3.680	5.568	6.931
19.43	5.982	8.954	11.077
35.82	6.548	10.811	13.896

Hartwig, 1891

%	$\tau.10^5$	λ
	18°	
9.68	36.1	1.0219
19.43	35.2	0.4151
35.82	31.1	0.1421

Grindley and Bury, 1930

%	κ 0°	κ 25°
1.212	3.459	5.374
2.982	5.055	7.934
4.749	5.918	9.364
6.246	6.355	10.154
6.878	6.530	10.371
8.403	6.681	10.741
10.48	6.780	10.984
13.00	6.700	10.929
15.12	6.512	10.742
17.58	6.237	10.338
19.37	6.027	10.073
22.08	5.685	9.656
26.42	5.056	8.655
30.48	4.422	7.694
34.25	3.875	6.692
37.73	3.373	5.872
41.01	2.932	5.132
44.54	2.501	4.362
47.61	2.121	-
51.13	1.724	3.076
54.87	1.3485	2.386
58.44	1.0281	1.8424
61.20	0.8059	1.4495
64.32	0.5901	1.1000
67.25	0.4465	0.8170
69.21	0.3253	0.6555
70.92	0.2809	0.5251
73.65	0.1780	0.3778
75.75	0.1457	0.2769
78.88	0.0851	0.1692
82.02	0.04862	0.0943
86.17	0.01885	0.03787
90.58	0.00547	0.01126
95.63	0.00058	0.00105
100.00	0.00058	0.00039

Heat constants

Bury and Davies, 1932

%	U	%	U
	13.5 - 16.5°		
4.065	0.9945	14.92	0.9714
6.857	.9893	15.74	.9660
8.998	.9864	16.95	.9608
10.03	.9853	20.03	.9443
10.95	.9838	20.98	.9397
12.05	.9803	24.30	.9226
12.95	.9781	28.26	.9029
13.56	.9764	29.29	.8968
14.66	.9723		

Faucon, 1910

%	Q mix.	%	Q mix.
	9°		
5	-1.84	70	-161.2
10	-4.81	75	-184.9
20	-14.42	80	-207.6
40	-48.30	85	-227.4
57	-102.0	90	-230.1
61.5	-122.6	95	-190.9

Water + Isobutyric acid ($C_4H_8O_2$)
Heterogeneous equilibria

Moles, 1911

%	p 20°	25°	30°	35°	40°
0	17.64	23.69	31.8	41.8	55.1
11.51	18.35	24.70	32.9	43.3	56.8
21.70	18.75	25.10	33.0	43.6	57.3
30.00	18.65	24.80	33.1	43.7	57.3
47.50	18.65	24.80	32.9	43.7	57.3
65.00	18.60	24.70	32.9	43.5	57.1
78.20	18.55	24.70	32.9	42.9	54.9
90.00	16.50	21.35	27.1	37.9	50.0
90.90	15.20	20.30	24.8	-	-
100.00	1.01	1.55	2.16	2.95	4.12

Rothmund, 1898

%	sat.t.	%	sat.t.
15.81	-0.10	49.82	+21.57
20.00	+17.05	57.20	18.30
24.73	21.22	62.57	15.05
27.06	22.20	70.23	8.37
34.00	24.32	74.32	+4.40
42.13	+23.60		

Smirnoff, 1907

% 1st sample	sat.t.	% 2nd sample	sat.t.
18.72	7.40	17.82	10.05
19.29	9.00	19.04	14.05
20.28	10.65	19.83	15.85
21.47	12.42	22.70	19.85
23.97	14.47	25.15	21.65
24.29	14.62	28.50	22.85
24.65	14.75	30.25	23.15
26.70	15.47	33.86	23.25
29.59	15.72	38.30	23.15
32.67	15.57	42.07	22.85
39.04	14.47	51.40	21.55
44.51	13.34	62.45	15.85
48.37	12.42	69.08	10.05
50.76	11.79		
55.12	10.27		
59.81	7.97		
64.18	5.15		
64.98	4.55		

Lecat, 1949

%	b.t.	Dt min.
10	-	-0.4
21	99.3	Az
100	154.6	-

Tsakalotos, 1909

%	sat.t.
23.3	21.9
30.5	23.5
32.7	23.5
34.6	23.4
48.3	21.7

Faucon, 1910

% L_1	L_2	sat.t.	% L_1	L_2	sat.t.
14.91	85.09	-5.20	60.12	39.88	17.90
20.62	79.38	+18.90	70.10	29.90	10.40
29.97	70.03	24.00	72.08	17.92	0.70
35.60	64.40	24.70	86.44	13.56	-3.60
39.80	60.20	24.40	97.21	2.79	0
50.25	49.75	22.10			

Moles, 1911

C.S.T. = 17.8°

Howard and Patterson, 1926

C.S.T. : 30% 17.50° - 17.95°

Krishnan, 1935

C.S.T. : 50% 25.5°

Molecular clustering

t	p_h	p_v	p_u
		50%	
40.0	100	1.8	3.4
37.5	90	1.5	3.1
35.0	81	1.3	2.7
32.5	70	1.1	2.4
30.0	59	0.7	2.0
28.0	53	0.6	1.8
26.0	39	0.5	1.5
25.5	27	0.34	1.5

p_h - horizontal polarisation
p_v - vertical polarisation
p_u - unpolarised light

Rousset, 1936

C.S.T. : 36% 25.50°

Patterson, 1938

%	sat.t.	%	sat.t.
20.5	15.20	35.97	21.79
24.8	20.25	38.60	21.54
26.3	20.90	42.10	21.20
28.25	21.50	49.00	20.15
31.35	21.90	49.70	20.01
33.24	21.89	58.10	17.00
35.95	21.76		

C.S.T. : 32% 21.90°

Quantie, 1954

C.S.T. : 37.4% 26.5°

Rabinovich, Fedorov and al., 1955 (fig.)

t	mol% L_1	mol% L_2
-2	4	44
+5	4.5	37
15	5.5	27
20	6	21
25	11	11

Timmermans and Kohnstamm, 1910

C.S.T.	limits of pressure	dt/dp
23.2	1 - 195 Kg	-0.06

Timmermans, 1923

P Kg	C.S.T.	dt/dp	P kg	C.S.T.	dt/dp
1	26.4	-3.0	300	9.40	-0.061
50	23.76	-0.055	475	0.0	-0.053
100	21.14	-0.052	525	-2.6	-0.052
170	17.34	-0.054	625	-8.2	-

Faucon, 1910

%	f.t.	%	f.t.
0.00	-0.00	39.80	-2.95
5.21	-1.04	70.10	-3.09
9.94	-2.01	82.08	-3.35
14.91	-2.70	86.44	-3.61
20.62	-2.85	97.21	-12.50
29.97	-2.93	100.00	-80.00
35.60	-2.95		

Properties of phases

Friedländer, 1901

t	d	t	d	t	d
0%		19.99%		24.25%	
14.12	0.9993	17.88	1.0036	23.18	1.0002
20.12	.9982	18.48	.0034	23.73	0.9999
25.90	.9969	20.08	.0027	24.67	.9994
31.83	.9952	24.96	.0004	27.89	.9977
37.77	.9932	32.97	0.9964	33.99	.9945
45.08	.9904	42.32	0.9912	42.15	.9898
33.32%		36.3%		38.6%	
25.82	0.9956	25.94	0.9944	25.92	0.9937
26.37	.9953	26.51	.9941	26.50	.9933
27.47	.9947	27.59	.9935	27.75	.9926
30.47	.9930	30.54	.9918	30.36	.9910
35.50	.9900	35.52	.9888	35.36	.9880
42.26	.9858	42.33	.9843	42.62	.9833
41%		49%		59.93%	
25.87	0.9927	25.28	0.9897	20.99	0.9879
26.39	.9924	25.77	.9894	21.49	.9875
27.47	.9917	26.87	.9887	22.50	.9867
30.45	.9899	30.78	.9861	26.46	.9838
35.46	.9867	35.91	.9825	33.41	.9786
42.20	.9822	42.29	.9779	42.32	.9715
100%					
14.66	0.9535				
20.13	.9480				
25.97	.9421				
32.28	.9357				
38.23	.9297				
45.11	.9228				

Drucker, 1905

c	d 25°	d 35°	c	d 25°	d 35°
0	0.99707	0.99409	5.639	0.99937	0.99595
0.1049	.99713	.99414	11.69	1.00148	.99730
.4320	.99726	-	18.95	1.00211	.99705
.7623	.99736	0.99428	69.93	0.98428	.97582
1.9150	.99790	.99473	101.10	0.94785	.93779

Antonov , 1907

%	d 26.2°	d 22°	%	d 26.2°	d 22°
0	0.9982	-	32.19	0.9970	-
16.01	1.0010	1.0027	48.73	.9876	0.9937
20.07	-	.0021	65.51	.9827	0.9855
22.31	0.9990	.0018	100	.9439	-

Tsakalotos, 1909

%	d 26°	d 22°	%	d 26°	d 22°
0	0.9970	0.9972	66.0	0.9822	0.9848
23.3	.9984	1.0016	78.7	.9714	.9746
32.7	.9965	-	100	.9441	.9481
48.3	.9936	0.9942			

Moles, 1911

%	d 20°	d 40°	%	d 20°	d 40°
0.0	0.9982	0.9922	65.0	0.9880	0.9730
11.51	1.0032	.9950	78.2	.9782	.9610
21.70	1.0023	.9923	90.0	.9647	.9533
30.00	1.0010	.9893	100.0	.9502	.9300
47.50	0.9936	.9824			

Holmes, 1913

%	d 15°	%	d 15°
71.93	0.98607	82.23	0.97806
76.39	.98292	87.27	0.97303
81.57	.97869		

De Lattre, 1927

%	t	d	%	t	d
0.00	25.90	0.9969	41.00	26.39	0.9924
33.32	26.37	.9953	49.00	25.77	.9894
36.30	26.51	.9941	100.00	25.97	.9421

Friedländer, 1901

t	η*	t	η*
0%		19.99%	
14.12	1.3117	17.88	2.120
20.12	1.1245	18.48	2.080
25.90	0.9792	20.08	1.983
31.83	0.8616	24.96	1.725
37.77	0.7645	32.97	1.405
45.08	0.6680	43.32	1.133
24.25%		33.32%	
23.18	2.066	25.82	2.599
23.73	2.028	26.37	2.498
24.67	1.970	27.47	2.363
27.89	1.798	30.47	2.123
33.99	1.531	35.50	1.836
42.15	1.262	42.26	1.543
36.3%		38.6%	
25.94	2.875	25.92	3.078
26.51	2.684	26.50	2.815
27.59	2.525	27.75	2.611
30.54	2.253	30.36	2.358
35.52	1.939	35.36	2.026
42.33	1.624	42.62	1.670
41%		49%	
25.87	3.179	25.28	3.189
26.39	2.928	25.77	3.108
27.45	2.743	26.37	2.963
30.45	2.436	30.78	2.596
35.46	2.090	35.91	2.242
42.20	1.748	42.29	1.900
59.93%		100%	
20.99	3.677	14.66	1.602
21.49	3.598	20.13	1.464
22.50	3.482	25.97	1.335
26.46	3.087	32.28	1.215
33.41	2.547	38.23	1.118
42.32	2.045	45.11	1.020

* η(water^{25} = 1)

Tsakalotos, 1909

%	η 26°	η 22°	%	η 26°	η 22°
0	870	958.0	66.0	2772	3161.0
23.3	1608	1803.0	78.7	2591	2958.0
32.7	2067	-	100.0	1167	1280.0
48.3	2636	3037.0			

Whatmough, 1902

t	σ	t	σ
L_1		L_2	
6.5	29.97	6.0	29.70
11.0	29.49	11.0	22.41
15.3	29.15	15.5	29.02
19.8	28.82	20.0	28.76
25.2	28.43	25.2	28.43

Drucker, 1905

c	σ 25°	σ 35°	c	σ 25°	σ 35°
0	73.07	71.73	5.649	37.80	37.15
0.1049	70.60	69.30	11.69	30.25	29.75
.4320	63.45	62.55	18.95	27.75	27.55
.7623	59.25	58.60	69.93	26.90	26.25
1.915	50.30	49.70	101.10	24.05	23.80

Antonov, 1907

%	σ 26.2°	σ 22°	%	σ 26.2°	σ 22°
0	70.71	-	32.19	25.98	-
16.01	26.57	26.71	48.73	25.93	26.02
20.07	-	26.02	65.51	25.99	25.97
22.31	26.03	26.06	100	23.95	-

Moles, 1911

%	σ 20°	σ 40°	%	σ 20°	σ 40°
0.0	71.95	68.65	65.0	26.45	24.51
11.51	29.87	27.57	78.2	26.00	24.21
21.70	26.28	25.27	90.0	25.68	23.49
30.00	26.40	25.15	100.0	24.24	22.92
47.50	26.43	24.83			

Friedländer, 1901

t	n C	n D	n F
		0%	
20.46	1.33131	1.33315	1.33737
22.46	.33110	.33302	.33701
24.43	.33092	.33279	.33679
26.40	.33066	.33257	.33653
28.77	.33042	.33231	.33626
30.95	.33013	.33204	.33598
		24.10%	
23.70	1.35778	1.35974	1.36415
23.97	.35770	.35969	.36404
24.29	.35754	.35960	.36392
26.29	.35721	.35926	.36355
30.51	.35674	.35882	.36310
		36.40%	
26.15	1.35983	1.36184	1.36628
26.45	.35979	.36178	.36617
26.95	.35966	.36173	.36611
28.40	.35934	.36134	.36586
30.26	.35902	.36094	.36537
		41.11%	
26.27	1.36294	1.36491	1.36939
26.35	.36289	.36492	.36936
26.71	.36280	.36487	.36927
28.24	.36257	.36457	.36892
30.11	.36204	.36407	.36847
		49.06%	
25.49	1.36861	1.37060	1.37510
25.76	.36852	.37051	.37502
26.27	.36834	.37040	.37496
27.83	.36793	.37001	.37442
30.24	.36729	.36938	.37381
		100%	
20.46	1.39144	1.39343	1.39822
22.44	.39049	.39258	.39729
24.29	.38974	.39187	.39651
26.38	.38883	.39097	.39559
28.30	.38806	.39016	.39484
30.93	.38691	.38908	.39366

De Lattre, 1927

%	t	n_D	%	t	n_D
0.00	25.90	1.33262	41.00	26.39	1.36485
33.32	26.37	.35169	49.00	25.77	.37048
36.30	26.51	.35170	100.00	25.97	.39114

Next Page

Friedländer, 1901

t	κ	t	κ
19.99%		24.25%	
17.88	7.150	23.18	6.945
18.48	7.225	23.73	6.999
20.08	7.421	24.67	7.108
24.96	8.020	27.89	7.444
32.97	8.903	33.99	8.069
42.32	9.832	42.15	8.821
33.32%		36.30%	
25.82	4.981	25.94	4.483
26.37	5.031	26.51	4.532
27.47	5.126	27.59	4.622
30.47	5.385	30.54	4.846
35.50	5.748	35.52	5.189
42.26	6.220	42.33	5.631
41%		49%	
25.87	3.665	25.28	2.232
26.39	3.705	25.77	2.255
27.47	3.783	26.87	2.303
30.45	3.976	30.78	2.467
35.46	4.272	35.91	2.660
42.20	4.625	42.29	2.881
59.93%			
20.99	0.8716		
21.49	.8801		
22.50	.9006		
26.46	.9709		
33.41	1.0886		
42.32	1.2290		

Davies, 1935

%	U	%	U
	15°		
4.080	0.9942	21.15	0.9407
6.214	.9911	21.98	.9360
8.111	.9883	22.73	.9317
9.305	.9867	23.38	.9323
11.12	.9825	24.22	.9319
12.45	.9789	25.15	.9307
13.84	.9748	26.08	.9231
14.94	.9715	27.06	.9200
17.03	.9627	28.05	.9137
18.71	.9539	29.69	.9008
20.34	.9453		

Water + Valeric acid ($C_5H_{10}O_2$)

Drucker, 1905

c	d 25°	d 35°	σ 25°	σ 35°
0.2192	0.99716	0.99410	59.50	58.40
0.3758	.99719	.99405	54.25	53.00
0.8314	.99726	.99414	42.60	42.10
2.340	.99762	-	31.60	32.00
3.171	.99793	0.99464	31.60	30.40
87.04	.95179	.94310	25.80	24.60
93.91	.93620	.92733	26.85	26.05

Water + Isovaleric acid ($C_5H_{10}O_2$)

Timmermans and Kohnstamm, 1910

C.S.T.	limits of pressure	dt/dp
95.0	5 - 60 Kg	-0.03

Lecat, 1949

%	b.t.	Dt min.
18	-	-0.9
18.4	99.5	Az
100	176.5	-

Drucker, 1905

c	d 25°	d 35°	σ 25°	σ 35°
0	0.99707	0.99409	73.07	71.73
0.1452	.99712	.99402	64.65	64.00
0.3404	.99714	.99411	57.65	57.30
1.034	.99722	.99416	45.95	44.80
2.542	.99738	.99423	35.05	34.35
4.243	.99785	.99444	29.60	28.95
5.237	.99753	.99434	-	-
89.37	.94300	.93438	24.90	23.95
99.77	.92506	.91573	25.35	24.60

Water + Oxalic acid ($C_2H_2O_4$)

Gerlach, 1886

%	b.t.	%	b.t.	%	b.t.
0	100	55.56	112	69.46	123
11.42	101	57.27	113	70.42	124
20.38	102	58.84	114	71.29	125
27.33	103	60.27	115	71.43	125.2
33.02	104	61.61	116	75.65	130
37.73	105	62.89	117	79.68	135
41.35	106	64.10	118	83.89	140
44.44	107	65.27	119	88.20	145
47.09	108	66.38	120	92.59	150
49.49	109	67.49	121	97.09	155
51.68	110	68.50	122	100.00	158
53.70	111				

Koppel and Cahn, 1908

%	b.t.	%	b.t.
17.25	101.58	53.64	110.65
34.95	103.90	60.99	113.90
47.59	107.20	67.93	116.00

Lescoeur, 1887, 1890 and 1896

t	p dissoc.	t	p dissoc.
	(2+1)		
25	1.9	45	10.6
30	2.8	67	44.5
35	4.4	78.6	84.0
40	7.1		
	(4+1)		
5	5.5	10	8.6

Guthrie, 1875

E = -0.5

Miczynski, 1886

%	f.t.	%	f.t.
3.34	0.0	17.45	40
5.25	10	23.70	50
8.07	20	31.29	60
12.10	30	38.96	70

Lamouroux, 1899

c	f.t.	c	f.t.
3.3	0	15.4	35
7.0	15	25.4	50
8.6	20	37.1	65

Koppel and Cahn, 1908

%	f.t.	%	f.t.	%	f.t.
3.416	0	17.71	40	37.92	70
5.731	10	23.93	50	45.80	80
8.69	20	30.71	60	54.59	90.2
12.46	30				

Snethlage, 1950

%	f.t.	%	f.t.	%	f.t.
3.39	0	12.51	30	47.39	80
5.39	10	17.83	40	54.57	90
8.34	20	31.71	60		(2+1)

Wasastjerna, 1920

M	d	n 6563 Å	n 5893 Å	n 4861 Å
		20°		
0.0000	0.99823	1.33151	1.33331	1.33748
0.1132	1.00336	1.33270	1.33458	1.33877
0.1697	1.00580	1.33321	1.33513	1.33933
0.2263	1.00821	1.33387	1.33575	1.33997
0.3394	1.01290	1.33487	1.33678	1.34105
0.4242	1.01645	1.33578	1.33765	1.34188
0.5090	1.01996	1.33660	1.33844	1.34271
0.5938	1.02343	1.33734	1.33924	1.34352
0.6786	1.02696	1.33817	1.34004	1.34436
		25°		
0.0000	0.99707	1.33108	1.33291	1.33701
0.1131	1.00210	1.33222	1.33406	1.33828
0.1695	1.00452	1.33270	1.33458	1.33877
0.2260	1.00690	1.33335	1.33521	1.33944
0.3390	1.01156	1.33439	1.33623	1.34048
0.4236	1.01501	1.33512	1.33702	1.34130
0.5083	1.01846	1.33595	1.33788	1.34213
0.5929	1.02195	1.33672	1.33860	1.34293
0.6776	1.02540	1.33750	1.33940	1.34373

Snethlage, 1950

%	t	Q diss. by mole (2+1)
3.39	0	-7480
5.39	10	7890
8.34	20	3100
12.51	30	3160
17.83	40	3390
31.71	60	8940
47.39	80	9220
54.57	90	-

Water + Malonic acid ($C_3H_4O_4$)

Davies and Thomas, 1956

m	Dp	m	Dp
24.99°			
0.461	0.208	3.436	1.338
0.992	0.432	3.945	.531
1.729	0.712	4.387	.700
2.545	1.000	4.838	.891
2.820	1.102		

Miczynski, 1886

%	f.t.
51.99-52.17	1.0
57.90	15.8
57.99	16.1

Lamouroux and Massol, 1899

c	f.t.	c	f.t.
61.1	0	82.6	35
70.2	15	92.6	50
73.5	20	102.3	65
76.3	25		

Klobbie, 1897

%	f.t.	%	f.t.
56.475	10	62.33	25
58.36	15	71.75	53
59.61	18	86.03	93
61.69	24	100.00	132

King and Mangler, 1922

m	d	m	d
20°			
0.01893	0.9962	0.60565	1.0200
.03785	0.9990	1.21130	.0316
.07570	1.0002	2.42260	.0508
.15141	.0041	4.84520	.1293
.30282	.0093		

m	σ	m	σ
20°			
0	72.6	0.30382	70.785
0.01893	72.495	0.60565	69.565
.03785	72.356	1.21130	67.900
.07570	72.050	2.42260	65.888
.15141	71.551	4.84520	64.033

Glagoleva, 1956 (fig.)

M	σ 20°	σ 25°	M	σ 20°	σ 25°
0	72.5	69	1.5	67	65
0.2	66.5	64.5	2.0	68	65.5
0.6	66	64.4	2.5	69.5	66.5
1.0	66.5	64.5	3.2	71	68

M	κ	M	κ
20°			
0	10	0.8	80
0.05	12	1.0	88
.1	30	1.2	85
.2	40	1.8	85
.4	60	2.8	85
.6	65	3.1	85

Tammann and Tofaute, 1929

P Kg	t	Dλ/λ.100 0.5N	1.0N	3.0N
500	20	14.0	14.0	12.4
	40	12.4	11.8	12.6
1000	20	28.2	29.0	25.9
	40	25.3	24.4	24.2
1500	20	42.9	43.7	39.7
	40	37.9	37.5	36.1
2000	20	58.0	58.7	53.4
	40	50.4	51.1	47.9
2500	20	71.8	73.6	66.7
	40	62.6	64.7	60.3
3000	20	85.5	88.7	79.2
	40	74.8	78.6	74.2

Water + Malonic acids.

Massol and Lamouroux, 1899

2nd comp. Name	Formula	c at f.t. 0°	15°	25°	50°
Methylmalonic ac.	($C_4H_6O_4$)	44.3	58.5	67.9	91.5
Ethylmalonic ac.	($C_5H_8O_4$)	52.8	63.6	71.2	90.8
Propylmalonic ac.	($C_6H_{10}O_4$)	45.6	60.1	70.0	94.4
Butylmalonic ac.	($C_7H_{12}O_4$)	11.6	30.4	43.8	79.3
Isoamylmalonic ac.	($C_8H_{14}O_4$)	38.5	51.8	60.8	83.4

Water + Succinic acid ($C_4H_6O_4$)

Tammann, 1915

%	p
100°	
12.20	745.6
24.68	725.9
32.07	711.5
35.59	704.4
49.14	663.8

Baroni, 1932

%	b.t.	%	b.t.
3.03	100.139	16.36	100.789
5.54	100.246	18.88	100.929
8.13	100.363	21.42	101.080
11.04	100.508	23.88	101.240
14.53	100.654		

Miczynski, 1886

%	f.t.	%	f.t.
2.72	0.0	19.62	50.0
4.32	10.0	26.38	60.0
6.45	20.0	33.80	70.0
9.56	30.0	41.48	80.0
13.95	40.0		

Lamouroux, 1899

c	f.t.	c	f.t.
2.79	0	10.6	35
4.9	15	18.0	50
5.8	20	28.1	65

Marshall and Cameron, 1910

%	f.t.
2.69	0.0
6.40	20.0
7.91	25.0
12.93	40.0

Marshall and Bain, 1910

%	f.t.	%	f.t.
2.67	0.0	19.24	50.0
4.69	12.5	28.24	62.5
7.71	25.0	37.64	75.0
12.36	37.5		

Bourgoin, 1924

%	f.t.	%	f.t.
2.80	0.0	10.94	35.5
4.05	8.5	13.32	40.5
4.92	14.5	16.86	48.0
5.43	17.5	37.81	78.0
7.78	27.0	54.72	100.0

Benrath, 1942

%	f.t.	%	f.t.
60	108	80	144
65	118	85	152
70	126	90	160
75	134	100	181

Robinson, P.K.Smith and E.R.B.Smith, 1942

Isopiestic solutions.

m_1	m_2	m_1	m_2
25°			
0.3798	0.3989	0.4982	0.5470
.4164	.4438	.5072	.5555
.4701	.5111	.5409	.6023

1 - sucrose 2 - succinic acid

Water + Methylsuccinic acid ($C_5H_8O_4$)

Davies and Thomas, 1956

m	Dp	m	Dp
24.99°			
0.300	0.125	0.600	0.233
.400	.163	.700	.270
.500	.199	.800	.311
.564	.219	.900	.350
.568	.219	1.000	.390

Water + Methylsuccinic acid d ($C_5H_8O_4$)

Berner and Leonardsen, 1939

%	d	$(\alpha)_D$
	20°	
2.642	1.0047	8.85
5.011	.0107	9.13
10.438	.0243	9.73
13.889	.0335	10.05
19.434	.0476	10.44
34.700	.0880	11.92
55.370	.1430	13.18

Water + Ethylsuccinic acid d ($C_6H_{10}O_4$)

Berner and Leonardsen, 1939

%	$(\alpha)_D$	%	$(\alpha)_D$
	20°		
5.390	18.03	32.341	19.45
9.702	18.43	46.678	19.78
18.475	18.99	49.625	19.83
27.696	19.29	71.172	19.95

Water+α,α'-Dimethylsuccinic acid ($C_6H_{10}O_4$)

Berner and Leonardsen, 1939

%	$(\alpha)_D$	%	$(\alpha)_D$
d	20°	l	
4.157	+8.02	5.053	-8.04
8.311	8.08	13.117	8.17
23.185	8.57	20.317	8.43

Water + Glutaric acid ($C_5H_8O_4$)

Davies and Thomas, 1956

m	Dp	m	Dp	m	Dp
25.01°		35.02°		45.01°	
0.493	0.199	0.325	0.229	0.325	0.434
1.000	-	.388	.273	.388	.515
1.092	0.422	.710	.480	.711	.877
1.416	.480	.945	.610	.943	1.123
2.186	.680	1.894	1.090	1.883	1.941
2.403	.725	2.637	.417	2.613	2.460
2.880	.806	3.688	.777	3.646	3.094
3.789	.996				
4.114	1.080				

Attané and Doumani, 1949

%	f.t.	%	f.t.
31.8	3.4	56.5	23.9
41.3	10.4	61.5	28.3
51.0	18.0	74.8	45.8

Water +α -Methylglutaric acid d ($C_6H_{10}O_4$)

Berner and Leonardsen, 1939

%	d	$(\alpha)_D$
	20°	
7.280	1.0139	+20.04
14.112	.0295	19.23
25.759	.0561	18.34
35.065	.0766	17.88

Water +α -Ethylglutaric acid d ($C_7H_{12}O_4$)

Berner and Leonardsen, 1939

%	d	$(\alpha)_D$
	20°	
3.094	1.0045	+9.17
5.909	.0094	8.97
11.506	.0191	8.68
15.624	.0262	8.48
21.450	.0363	8.12
31.106	.0531	8.20
48.395	.0843	8.39
64.847	.1117	8.88
74.674	.1275	9.53

Water + Adipic acid ($C_6H_{10}O_4$)

Attuné and Doumani, 1949

%	f.t.	%	f.t.
2.98	34.1	14.97	60.0
4.87	40.0	25.43	70.0
8.46	50.0	48.67	87.1

Water + β-Methyladipic acid ($C_7H_{12}O_4$)

Attané and Doumani, 1949

%	f.t.	%	f.t.
6.38	9.5	40.6	33.2
7.58	12.8	59.4	41.1
19.50	25.9	74.7	52.3
29.90	29.8	85.5	64.3

Water + Maleic acid ($C_4H_4O_4$)

Davies and Thomas, 1956

m	Dp	m	Dp
	25.00°		
0.500	0.236	2.000	0.826
1.000	.436	2.500	1.006
1.500	.646	3.000	1.196

Robinson, P.K.Smith and E.R.B.Smith, 1942

Isopiestic solutions

m_1	m_2	m_1	m_2
	25°		
0.5056	0.4727	1.371	1.542
.5548	.5238	.565	1.811
.8680	.8900	.743	2.070
.9530	.9927	2.000	.453
1.1710	1.275	.225	.804
.1890	.298	.523	3.264

1 - sucrose 2 - maleic acid

Lange and Sinks, 1930

c = 0.645 t + 28.2 (5 - 40°) solubility

c = 0.492 t + 34.5 (above 40°)

c = 276.78 (d^{20} 0.9982)

Weiss and Downs, 1923

%	f.t.
44.1	25
53.0	40
59.8	60
79.7	97.5

%	d	%	d
	25°		
0	0.999	25	1.081
5	1.017	30	.101
10	.034	35	.220
15	.0536	40	.139
20	.062	45	.159

Water + Fumaric acid ($C_4H_4O_4$)

Lange and Sinks, 1930

Solubility: log. c (5-80°)= 0.01672t - 0.6362
where c is gr. acid in 100gr. solution.

Water + Glycolic acid ($C_2H_4O_3$)

Tammann, 1915

%	p
	100°
9.37	741.3
18.45	720.9
43.40	633.4

Water + Lactic acid ($C_3H_6O_3$)

Tammann, 1915

%	p	%	p
	100°		
8.42	747.2	36.63	689.8
14.67	737.0	45.72	656.9
24.64	719.8	53.43	617.7

Abegg, 1894

M	f.t.
0.963	-1.99
1.925	-4.31
2.888	-7.03
3.850	-10.23
4.813	-14.03

Hoppe-Seyler and Araki, 1895

c	t	d
39.850	15.2	1.09070
22.902	14.0	.05383
12.429	20.8	.03484
11.194	13.4	.02726
6.565	20.6	.01918

c	t	$(\alpha)_D$	c	t	$(\alpha)_D$
	d			l	
39.850	11.5	3.541	12.429	23.3	-4.727
		3.483	6.565	23.6	-5.864
22.902	11.5	2.530			
11.194	16.0	1.565			
	10.5	1.888			
	13.0	1.671			

Le Blanc and Rohland, 1896

%	d	n_D
	20°	
14.75	1.0368	1.3503
34.47	1.0871	1.3726

Dunstan, 1904-05

%	η	%	η
	25°		
0	891	43.98	2733
12.76	1186	53.30	3591
21.71	1455	60.24	3621
30.85	1849	75.75	7995
33.69	1782	100.00	40330
34.76	2026		

Turbaba, 1890

mol%	a . 10^7	b . 10^9
4	1920	4250
2	1060	4720
1	233	5410

V_t (0 - 30°) = 1 + at + bt^2

Troupe, Aspy and Schrodt, 1951

t	d					
	85.32%	75.33%	64.89%	45.48%	24.35%	9.16%
20	1.1989	1.17860	1.15526	1.10980	1.05678	1.01955
25	.1948	.17482	.15181	.10536	.05446	.01811
30	.1901	.17013	.14723	.10182	.05183	.01585
40	.1813	.16132	.13987	.09427	.04715	.01138
50	.1718	.15262	.13205	.08703	.04146	.00674
60	.1631	.14250	.12357	.07925	.03513	.00076
70	.1536	.13407	.11532	.07219	.02958	0.99504
80	.1443	.12511	.01762	.06399	.02260	0.98899

t	η					
	85.32%	75.33%	64.89%	45.48%	24.35%	9.16%
25	28500	13030	6960	3090	1670	1150
30	22600	10550	6010	2740	1460	1030
40	13910	7080	4220	2030	1130	809
50	9400	4980	3120	1590	918	671
60	6400	3570	2380	1260	746	572
70	4590	2730	1850	1020	632	473
80	3400	2080	1470	843	532	416

Ginsberg, 1923

% final (initial 91.8%)	Q dil (cal/g acid)	% final (initial 91.8%)	Q dil (cal/g acid)
0.9	11.98	18.5	6.20
1.1	11.88	37.6	4.32
2.1	11.68	44.2	3.72
3.8	10.73	48.5	3.27
4.4	10.01	60.5	2.25
5.0	8.90	77.6	0.9
10.2	7.46	87.9	0.3

Water + Malic acid ($C_4H_6O_5$)

Heterogeneous equilibria

Tammann, 1915

%	p	%	p
	100°		
9.81	749.2	46.08	662.9
18.54	737.3	53.25	626.4
28.14	717.9	61.13	577.1

Davies and Thomas, 1956

m	Dp	m	Dp
	25.00°		
0.500	0.216	2.000	0.866
1.000	.436	2.500	1.086
1.500	.646	3.000	1.306

Weiss and Downs, 1923

%	f.t.
59.15	26
68.95	50
72.85	60
76.85	70
80.65	79

Lange and Sinks, 1930

Solubility : c (5 - 80°) = 0.438 t + 47.04

Density at 20°

c = 244.55 (d-0.9982) for d below 1.108

c = 216.17 (d-0.9839) for d between 1.108 and 1.169

where c is gr. acid in 100 gr. solutions.

Timmermans and Dumont, 1931

%	f.t.
13	-2.20 E
21.23	+10
26.66	20

%	f.t.
23	-4.26
33	-7.28
37.5	-8.80
41	-10.48
44.5	-12.10

Robinson, P.K.Smith and E.R.B. Smith, 1942

Isopiestic solutions.

m_1	m_2	m_1	m_2
	25°		
0.5176	0.5278	2.570	3.054
1.048	1.123	2.942	3.585
1.742	1.989	3.070	3.773
2.107	2.441	3.738	4.653
2.188	2.552	4.802	6.118
2.521	3.008	5.034	6.420

1-sucrose, 2-malic acid

Density

Schneider, 1880-1

%	d	%	d
	20°		
0	0.9982	36.660	1.1705
8.402	1.0344	37.528	.1735
14.354	.0590	46.467	.2239
16.649	.0676	49.872	.2292
29.062	.1269	59.987	.2854
29.687	.1271	70.125	.3448
35.265	.1540		

Nasini and Gennari, 1895-6

%	d	t	d
20°		33.24%	
0	0.99823.	7	1.14628
4.6057	1.01560	20	.13949
8.2292	.03039	41.5	.12720
16.2430	.06347		
16.8373	.06629		
20.7348	.08268		
25.6650	.10335		
27.3970	.11269		
28.7231	.11926		
30.0195	.12394		
34.2400	.13949		
34.2667	.14232		
41.5700	.17959		
42.8000	.18608		
59.0184	.27230		
72.7200	.34543		

Woringer, 1901

%	d		%	d
0	0.9982	20°	24.212	1.1035
7.316	1.0279		31.533	.1401
10.228	.0412		38.952	.1728
14.946	.0620		50.918	.2424
19.314	.0822			

Winther, 1902

t	d			
	59.72%	44.99%	30.10%	14.97%
20	1.2581	1.1870	1.1195	1.0557
30	.2507	.1806	.1139	.0515
40	.2484	.1740	.1088	.0470
50	.2358	.1670	.1030	.0419
60	.2276	.1599	.0965	.0363

Grossmann and Wienecke, 1906

c	t	d	c	t	d
2 N	24.482%		1 N	12.827%	
26.985	10	1.1022	13.484	10	1.0511
26.876	20	.0978	13.442	20	.0477
26.752	30	.0927	13.391	30	.0439
26.636	40	.0880	13.341	40	.0399
26.496	50	.0823	13.278	50	.0350
26.347	60	.0762	13.206	60	.0294
26.189	70	.0698	13.130	70	.0235
26.030	80	.0632	13.055	80	.0177
25.844	90	.0557	12.967	90	.0108
0.5 N	6.568%		0.25 N	3.325%	
6.722	20	1.0232	3.361	20	1.0106
6.675	40	.0161	3.338	40	1.0037
6.611	60	.0064	3.308	60	0.9947
6.540	80	0.9957	3.273	80	0.9842
6.495	90	0.9842			
		0.125 N	1.673%		
1.681	20	1.0043	1.635	80	0.9771
1.663	50	0.9939			

Dunstan and Thole, 1908

%	d
25°	
0	0.9972
17.43	1.0665

Weiss and Downs, 1922

%	d	%	d
25°			
0	0.999	25	1.103
5	1.019	30	.128
10	.039	35	.150
15	.0595	40	.177
20	.080	45	.200

Descamps, 1939

%	d	%	d
20°			
4.5580	1.0159	9.5469	1.0356
7.7204	1.0283	15.8631	1.0614
8.5030	1.0313	22.9482	1.0917

Guillaume, 1946

%	d
20°	
8.17	1.0315
18.56	.0760
34.78	.1481

Dunstan and Thole, 1908

%	η
25°	
0	891
17.43	1550

Rotatory power

Schneider, 1880-1

%	$(\alpha)_D$	%	$(\alpha)_D$
	20°		
8.402	-2.30	36.660	+0.09
14.354	-1.73	37.528	0.17
16.649	-1.58	46.467	1.00
29.062	-0.63	49.872	1.38
29.687	-0.34	59.987	2.31
35.265	-0.04	70.125	+3.34

Thomsen, 1882

%	$(\alpha)_D$ 10°	20°	30°
21.65	-0.44	-0.90	-1.43
28.67	+0.33	-0.35	-0.83
40.44	+1.31	+0.54	-0.12
53.75	+2.52	+1.73	+0.94
64.00	+4.10	+2.72	+1.99

Nasini and Gennari, 1895-6

%	(α) red	yellow	green	pale blue	dark blue
			20°		
4.6057	-1.87	-1.17	-2.56	-2.45	-2.51
8.2292	-1.09	-1.09	-1.08	-1.09	-1.08
16.2430	-1.28	-1.46	-1.30	-0.91	-0.36
16.8373	-1.07	-1.28	-1.05	-0.62	0.00
20.7348	-0.84	-1.00	-0.73	-0.40	+0.41
25.6650	-0.94	-0.81	-0.69	-0.39	+0.14
27.3970	-0.95	-0.80	-0.68	-0.40	0.00
28.7231	-0.79	-0.67	-0.46	-0.22	+0.29
30.0195	-0.51	-0.42	-0.05	+0.29	+0.72
33.2400	-0.41	-0.31	-0.07	+0.46	+0.86
34.2667	-0.18	+0.07	+0.51	+1.64	+2.20
41.5700	+0.13	+0.48	+1.04	+1.52	+2.36
42.8000	+0.19	+0.55	+1.18	+2.08	+3.29
59.0184	+1.35	+2.08	+3.05	+4.21	+5.63
72.7200	+1.80	+2.86	+3.90	+5.20	+6.39

t	(α) red	yellow	green	pale blue	dark blue
			33.24%		
7	+0.44	+0.78	+1.48	+1.97	+2.63
20	-0.41	-0.31	-0.07	+0.46	+0.86
41.5	-5.96	-6.93	-7.57	-6.24	-5.84

Woringer, 1901

%	(α) red	yellow	green	pale blue	dark blue
			20°		
7.316	-2.315	-2.479	-2.000	-1.874	-0.784
10.228	-1.591	-2.346	-1.872	-1.610	-0.713
14.946	-1.247	-1.228	-1.247	-0.869	+0.085
19.314	-1.078	-1.050	-0.658	-0.265	+0.909
24.212	-0.664	-0.589	-0.181	+0.314	+2.235
31.533	-0.296	+0.003	+0.471	+1.077	+2.986
38.952	+0.182	+0.600	+1.383	+2.080	+4.152
50.918	+1.150	+1.798	+2.934	+3.880	+6.677

Winther, 1902

t	(α)	t	(α)	t	(α)
		59.72%			
	red		yellow		green
15.1	+1.61	15.5	+2.20	15.3	+3.29
26.7	0.94	30.1	1.30	28.9	2.06
41.0	0.22	38.6	0.65	40.5	1.04
50.2	-0.26	51.2	-0.16	51.0	0.31
60.0	0.70	60.0	0.68	60.0	-0.42
	pale blue		dark blue		
15.1	+5.75	15.2	+6.82		
28.2	4.05	27.5	5.12		
41.6	2.44	41.5	3.33		
50.4	1.50	50.8	2.17		
60.0	0.49	60.0	1.05		
		44.99%			
	red		yellow		green
17.7	+0.62	17.6	+1.01	17.6	+1.68
27.9	0.06	30.6	0.21	29.3	0.85
40.7	-0.47	39.8	-0.34	41.3	-0.02
49.8	0.88	51.6	1.01	50.3	0.74
60.1	1.34	59.7	1.38	60.0	1.42
	pale blue		dark blue		
17.6	+3.57	17.6	+4.56		
29.3	2.33	18.5	3.25		
41.3	1.02	41.4	1.69		
50.3	0.08	50.8	0.59		
60.0	-0.79	60.0	-0.40		
		30.10%			
	red		yellow		green
16.2	-0.21	16.1	+0.06	16.1	+0.41
27.5	0.57	30.9	-0.66	29.9	-0.42
41.0	1.08	42.5	1.23	42.1	1.14
50.1	1.54	51.5	1.69	51.2	1.69
60.5	1.85	60.0	2.06	60.2	2.30
	pale blue		dark blue		
16.2	+1.75	16.2	+2.55		
29.1	0.77	28.2	1.61		
41.4	-0.45	41.9	0.09		
50.6	1.20	51.5	-0.87		
60.4	2.03	60.5	1.76		

14.97%

red		yellow		green	
17.7	-1.20	17.2	-1.01	17.3	-0.88
27.8	1.46	29.4	1.52	29.5	1.52
40.8	1.98	41.3	2.04	41.2	2.36
50.1	2.24	51.0	2.50	51.0	2.76
60.2	2.51	59.0	2.64	59.3	3.15

pale blue		dark blue	
17.5	+0.38	17.3	+0.51
29.6	-1.02	28.5	-0.57
41.0	2.04	41.1	1.72
50.6	2.69	51.0	2.44
59.8	3.19	60.0	3.03

Grossmann and Wieneke, 1906

c	t	$(\alpha)_D$	c	t	$(\alpha)_D$
	2 N	24.482%		1 N	12.827%
26.985	10	+0.1	13.484	10	-0.7
26.876	20	-0.5	13.442	20	-1.1
26.752	30	-1.0	13.391	30	-1.6
26.636	40	-1.6	13.341	40	-2.1
26.496	50	-2.1	13.278	50	-2.7
26.347	60	-2.6	13.206	60	-3.2
26.189	70	-3.0	13.130	70	-3.7
26.030	80	-3.4	13.055	80	-4.2
25.844	90	-3.8	12.967	90	-4.6
	0.5 N	6.568%		0.25 N	3.325%
6.722	20	-2.1	3.361	20	-3.0
6.675	40	-3.1	3.338	40	-4.2
6.611	60	-4.1	3.308	60	-5.1
6.540	80	-4.9	3.273	80	-5.8
6.495	90	-5.4			
	0.125 N	1.673%			
1.681	20	-3.6			
1.663	50	-5.4			
1.635	80	-6.7			

Descamps, 1939

%	$(\alpha)_{5461}$	%	$(\alpha)_{5461}$
	20°		
4.5580	-2.14	9.5469	-1.65
7.7204	-1.83	15.8631	-1.06
8.5030	-1.74	22.9482	-0.43

Guillaume, 1946

%	$*(\alpha)_{magn.}.10^6$	n 5780 Å
	20°	
8.17	3.869	1.3442
18.56	3.715	1.3588
34.78	3.473	1.3784

* in radians, gauss, centim.

Water + Tartaric acid ($C_4H_6O_6$)

Heterogeneous equilibria .

Speranski, 1909 and 1910

t	p	t	p
	sat.sol.		
22.70	18.43	38.05	39.19
26.18	21.95	41.70	46.63
29.11	25.40	43.22	49.88
31.17	28.11	46.31	57.60
34.63	33.32		

Tammann, 1915

%	p	%	p
	d	100°	l
21.59	732.8	10.65	748.1
32.40	708.2	15.49	740.7
44.25	667.9	31.34	710.5
49.87	647.2	38.21	690.7
60.44	589.7	50.58	637.7
		54.39	610.4

Gerlach, 1886

%	b.t.	%	b.t.
0	100	88.9	136
14.5	101	89.4	137
25.6	102	89.9	138
34.2	103	90.3	139
41.0	104	90.7	140
46.5	105	91.2	141
51.2	106	91.5	142
55.2	107	91.9	143
58.5	108	92.3	144
61.4	109	92.7	145
63.9	110	93.0	146
66.1	111	93.4	147
68.2	112	93.7	148
70.0	113	94.1	149
71.6	114	94.4	150
73.1	115	94.7	151
74.5	116	95.0	152
75.7	117	95.4	153
76.9	118	95.7	154
77.9	119	96.0	155
78.9	120	96.3	156
79.8	121	96.6	157
80.6	122	96.9	158
81.4	123	97.1	159
82.1	124	97.4	160
82.9	125	97.7	161
83.5	126	98.0	162
84.2	127	98.3	163
84.8	128	98.5	164
85.3	129	98.8	165
85.9	130	99.0	166
86.4	131	99.3	167
86.9	132	99.5	168
87.4	133	99.8	169
87.9	134	100	170
88.4	135		

Johnston, 1906

%	b.t.	%	b.t.
1.68	100.033	23.54	100.687
7.14	100.168	31.43	101.079
13.52	100.344	36.16	101.349
17.66	100.484		

Baroni, 1932

%	b.t.	%	b.t.
2.52	100.092	11.73	100.491
5.10	100.195	15.61	100.691
8.10	100.322	19.85	100.946

Guthrie, 1876

%	f.t.	%	f.t.
5	-0.7	30	-6.3
10	-1.4	35	-7.6
15	-2.5	40	-10.1
20	-3.7	45	-13.0
25	-4.7		

Leidie, 1882

f.t.	% (d+l)	%(rac)	f.t.	% (d+l)	%(rac)
0	53.50	8.16	55	67.30	36.34
5	54.55	9.13	60	68.50	39.21
10	55.70	10.96	65	69.71	41.98
15	56.92	13.02	70	70.89	44.61
20	58.23	15.25	75	72.06	47.13
25	59.67	17.63	80	73.11	49.52
30	60.96	20.13	85	74.32	51.81
35	62.36	22.70	90	75.40	53.85
40	63.77	27.01	95	76.44	56.00
45	64.92	30.22	100	77.45	57.93
50	66.10	33.33			

(l+l)

Abegg, 1894

M	f.t.
0.702	-1.459
1.404	-3.175
2.105	-5.355
2.807	-8.155
3.509	-11.857

Jones, 1904 and Jones and Getman, 1904

M	f.t.	M	f.t.
0.05	-0.111	0.6	-1.230
.10	-0.217	0.8	-1.680
.20	-0.425	1.0	-2.150
.40	-0.826		

Kendall, Booge and Andrews, 1917

mol%	f.t.	mol%	f.t.
0.407	-0.790	1.59	-3.225
.509	1.000	1.88	3.850
.747	1.459	2.31	4.790
.940	1.862	2.56	-5.355
1.090	-2.154		

Findlay and Campbell, 1928 and 1930

%		f.t.
d	rac	
59.6	17.7	25

Dalman, 1937 (fig.)

%	f.t.	%	f.t.
52	0	70	69
58.48	25	75	88
60	39	78	100
65	50		

Herrero-Sanchez, 1948

c	f.t.	c	f.t.
71.2	5	74.4	20
72.3	10	75.3	25
73.3	15	76.4	30

Robinson, P.K.Smith and E.R.B.Smith, 1942

Isopiestic solutions.

m_1	m_2	m_1	m_2
25°			
0.7262	0.7160	2.428	2.573
.7965	.7898	2.727	2.900
.9718	.9748	3.084	3.306
.9976	1.0045	.155	.381
1.203	.222	.546	.815
.331	.360	.648	.925
.363	.393	.951	4.258
.668	.728	.976	4.290
.749	.811	4.748	5.155
.761	.829	5.047	5.476
.944	2.026	.095	5.526
2.004	.091	.815	6.355
.258	.377	.825	6.362
.260	.382		

m_1= saccharose m_2= tartaric acid

Density

Gerlach, 1859

%	d	%	d
15°			
0	0.9990	29	1.1439
1	1.0036	30	.1495
2	.0081	31	.1550
3	.0127	32	.1605
4	.0170	33	.1660
5	.0215	34	.1716
6	.0264	35	.1771
7	.0313	36	.1830
8	.0362	37	.1890
9	.0411	38	.1949
10	.0460	39	.2008
11	.0508	40	.2067
12	.0556	41	.2127
13	.0604	42	.2187
14	.0652	43	.2248
15	.0700	44	.2306
16	.0752	45	.2366
17	.0813	46	.2430
18	.0856	47	.2493
19	.0907	48	.2557
20	.0959	49	.2625
21	.1010	50	.2685
22	.1062	51	.2751
23	.1114	52	.2817
24	.1165	53	.2883
25	.1217	54	.2950
26	.1272	55	.3016
27	.1318	56	.3082
28	.1383	57	.3147

Schiff, 1860

%	d	%	d
15°			
0	0.9991	26	1.1262
1	1.0036	27	.1315
2	.0081	28	.1369
3	.0126	29	.1423
4	.0172	30	.1478
5	.0218	31	.1533
6	.0265	32	.1588
7	.0312	33	.1643
8	.0359	34	.1699
9	.0406	35	.1755
10	.0454	36	.1811
11	.0502	37	.1868
12	.0550	38	.1925
13	.0599	39	.1982
14	.0648	40	.2039
15	.0698	41	.2097
16	.0748	42	.2153
17	.0798	43	.2214
18	.0848	44	.2273
19	.0898	45	.2332
20	.0949	46	.2392
21	.1000	47	.2452
22	.1052	48	.2512
23	.1104	49	.2573
24	.1156	50	.2634
25	.1209		

Krecke, 1872

t	d		
	40%	20%	10%
-10	1.2177	-	-
-5	.2155	-	-
0	.2133	1.1070	1.0536
+5	.2122	.1065	.0528
10	.2098	.1049	.0524
15	.2066	.1033	.0517
20	.2048	.1014	.0500
25	.2014	.0992	.0474
30	.1984	.0969	.0467
35	.1959	.0948	.0451
40	.1922	.0918	.0425
45	.1890	.0892	.0398
50	.1851	.0862	.0369
55	.1811	.0835	.0328
60	.1778	.0804	.0308
65	.1739	.0771	.0298
70	.1707	.0743	.0271
75	.1667	.0708	.0236
80	.1636	.0679	.0204
85	.1599	.0642	.0168
90	.1560	.0606	.0134
95	.1521	.0568	.0094
100	.1477	.0526	.0058

t	d	
	50%	40%
0	1.2770	1.2133
25	.2621	.2014
50	.2452	.1851
75	.2288	.1667
100	.2184	.1477

Kohlrausch, 1876

%	d	%	d
	18°		
4.95	1.0214	29.82	1.1475
9.87	.0448	39.72	.2045
19.85	.0943	49.53	.2642

Traube, 1885

%	d	%	d
	15°		
0	0.9991	16.67	1.0916
4.76	1.0236	23.08	.1339
9.09	1.0467	28.57	.1724

Thomsen, 1885

%	d 10°	20°	25°	30°
0	0.9997	0.9982	-	0.9957
20	1.0975	1.0945	-	1.0905
30	.1535	.1495	-	.1460
40	.2115	.2065	-	.2015
50	.2745	.2670	1.2635	.2600

Thomsen, 1886-7

mol%	d
	18°
0.5	1.0186
1.0	.0358
2.0	.0677
3.9	.1229
9.0	.2409

Moore, 1895

M	d
	18°
0.00	0.9987
.233	1.0130
.467	.0269
.833	.0542
1.666	.1092

Le Blanc and Rohland, 1896

%	d
	20°
0	0.9982
6.30	1.0274
10.48	1.0474
15.16	1.0700

Linebarger, 1898

%	d
	15°
0	0.9991
18.18	1.0870
33.33	.1866
50.05	.2699
53.32	.2913

Wendell, 1898

%	d
	20°
10.0613	1.0454
20.9248	.0995
30.0836	.1484
38.5768	.1968
48.8329	.2595

t	d 41.1793%	18.656%
0	1.22605	1.0949
10	.21875	.0913
20	.21290	.0877
30	.20710	.0836
50	.19330	.0729

Pribram and Glücksmann, 1898

%	d	%	d
	20°		
0.2091	0.99919	16.063	1.07469
0.7171	1.00153	18.186	.08510
1.0140	.00277	19.186	.08991
1.2391	.00382	20.698	.09780
2.0084	.00741	30.161	.14860
4.0098	.01645	33.847	.16885
5.0894	.02150	35.751	.18023
6.2049	.02687	44.330	.23119
10.8870	.04905	49.946	.26553

Lepeschkin, 1899

%	t	d
62.26	50	1.3223
62.26	60	.3161
63.17	40	.3394
66.48	20	.3796

Winther, 1902

t	d 48.39%	41.30%	37.37%	24.13%	9.68%
20	1.2560	1.2127	1.1895	1.1156	1.0430
30	.2493	.2064	.1833	.1107	.0395
40	.2425	.2001	.1773	.1056	.0355
50	.2356	.1933	.1707	.1002	.0307
60	.2282	.1865	.1638	.0937	.0256

Rudorf, 1903

M	d	M	d
	25°		
0.078	1.0025	0.625	1.0394
.156	.0080	1.250	.0790
.312	.0191	2.500	.1606

Jones, 1904 and Jones and Getman, 1904

M	d	M	d
	0°		
0.05	1.000496	0.6	1.036688
.10	.003892	0.8	.055752
.20	.010336	1.0	.062604
.40	.023720		

Grossmann and Wienecke, 1906

t	d 37.806%	26.650%	26.011%	10.776%
10	1.1953	1.1329	1.0972	1.0506
20	.1895	.1284	.0938	.0479
30	.1834	.1234	.0890	.0447
40	.1769	.1179	.0840	.0404
50	.1707	.1134	.0789	.0353
60	.1637	.1061	.0730	.0298
70	.1563	.0964	.0666	.0235
80	.1486	.0922	.0595	.0165
90	.1413	.0852	.0528	.0103

Dunstan and Thole, 1908

%	d	%	d
	25°		
0.0	0.9972	9.966	1.0428
4.02	1.0153	11.675	.0511
4.64	.0181	13.14	.0583
7.00	.0290	15.01	.0673
7.69	.0328	15.98	.0719
7.99	.0337		

Golse, 1911

%	d	%	d
11°		11.5°	
10.45	1.0497	24.62	1.1221
17.79	.0871	29.10	.1468
25.44	.1274	33.49	.1716
31.65	.1618	37.82	.1969
38.26	.2006	41.35	.2180
44.28	.2370	49.35	.2490
14.5°		20°	
1.07	1.0043	2.00	1.0077
2.84	.0122	4.91	.0211
4.84	.0214	9.61	.0429
6.93	.0313	18.46	.0864
7.31	.0335	26.64	.1294
9.83	.0454	34.22	.1714
		41.31	.2131
		47.88	.2540

King and Wampler, 1922

m	d	m	d
	20°		
0.12500	1.0106	2.00000	1.1110
.25000	.0184	4.00000	.1906
.50000	.0345	8.00000	.2966
1.00000	.0595		

Guillaume, 1946

%	d
20°	
9.05	1.0421
16.60	.0784
31.0	.1553
47.8	.2556

Rakshit, 1925

%	d	%	d
	20°		
1	1.00289	30	1.12817
5	1.02086	50	1.22205
10	1.04257	80	1.326483

Richards and Gucker, 1925

4mol% d^{18} = 1.1352

Turbaba, 1890

mol%	a . 10^7	b . 10^9
0.5	276	5076
1.0	840	4810
2.0	1786	3961
4.0	3086	2692

v_t (0 - 30°) = 1 + at + bt²

Other physical properties

Moore, 1895

M	η(water=1)	M	η(water=1)
	18°		
0.000	1.000	0.833	1.316
.233	.067	1.000	.412
.467	.139	1.478	.696
.500	.160	1.666	.853

Rudorf, 1903

M	η	M	η
	25°		
2.5	1748	0.312	949
1.25	1177	.156	919
0.625	1006	.078	904

Traube, 1885

%	σ	%	σ
	15°		
0	73.26	16.67	72.75
4.76	72.57	23.08	73.16
9.09	72.61	28.57	73.27

Linebarger, 1898

%	σ
15°	
18.18	71.44
33.33	72.11
50.05	73.39
53.32	73.86

Dunstan and Thole, 1908

%	η	%	η
	25°		
0.0	891	9.966	1120
4.02	969	11.675	1175
4.64	991	13.14	1218
7.00	1040	15.01	1294
7.69	1047	15.98	1319
7.99	1065		

King and Wampler, 1922

m	σ	m	σ
	20°		
0	72.600	1.00000	72.694
0.12500	72.660	2.00000	72.895
.25000	72.637	4.00000	73.260
.50000	72.675	8.00000	74.125

Le Blanc and Rohland, 1896

%	n_D
20°	
0	1.3333
6.30	.3409
10.48	.3463
15.16	.3525

Pagliarulo, 1926

w.l.	n 47.659%	39.037%	28.286%
6678	1.38535	1.37456	1.36856
6266	.38653	.37555	.36927
5893	.38779	.37661	.37016
5875	.38789	.37667	.37020
5780	.38824	.37696	.37052
5460	.38955	.37823	.37164
5183	-	-	.37284
5015	.39180	.38034	.37368
4916	-	.38090	.37421
4713	-	-	.37539
4471	.39552	.38397	.37700
4358	.39637	.38479	.37779

Golse, 1911

%	n_D	%	n_D
11°		11.5°	
10.45	1.3474	24.62	1.3669
17.79	.3576	29.10	.3742
25.44	.3684	33.49	.3807
31.65	.3779	37.82	.3872
38.26	.3881	41.35	.3925
44.28	.3979	49.35	.4015
14.5°		20°	
1.07	1.3349	2.00	1.3356
2.84	.3369	4.91	.3392
4.84	.3395	9.61	.3451
6.93	.3428	18.46	.3565
7.31	.3462	26.64	.3686
9.83		34.22	.3801
		41.31	.3910
		47.88	.4023

Guillaume, 1946

%	(α)magn.10^6 5780 Å 20°	n
9.05	3.840	1.3449
16.60	-	.3557
31.00	3.472	.3771
47.80	3.162	.4025

in radians, gauss, centim.

Lucas and Schwob, 1932

Absorption

c	optical density	optical density specif.
	2654 Å	
50	0.075	0.150
25	.047	.188
12.5	.033	.264
6.25	.027	.422
	2536 Å	
50	0.197	0.394
25	.184	0.736
12.5	.141	1.128
6.25	.0188	1.408

Kohlrausch, 1876

%	κ	$\tau.10^4$	%	κ	$\tau.10^4$
		18°			
4.95	59.53	186	29.82	95.70	200
9.87	80.78	191	39.72	78.68	222
19.85	98.88	187	49.53	54.22	263

Jones, 1904 and Jones and Getmann, 1910

M	λ	M	λ
	0°		
0.05	28.05	0.6	8.02
0.1	20.54	0.8	6.69
0.2	14.34	1.0	5.76
0.4	10.13		

Specific rotatory power

Thomsen, 1885

%	$(\alpha)_D$ 10°	15°	20°	25°	30°
20	10.89	-	11.99	-	12.95
30	9.16	-	10.41	-	11.44
40	7.63	-	8.95	-	10.11
50	5.92	6.68	7.36	8.00	8.63

Krecke, 1872

t	$(\alpha)_D$ 40%	20%	10%
-10	3.286	-	-
-5	4.526	-	-
0	5.532	8.656	9.948
+5	6.651	9.059	10.935
10	7.493	9.958	11.231
15	7.799	10.878	12.251
20	8.319	11.570	13.043
25	9.165	11.893	13.927
30	9.615	12.489	14.701
35	10.524	13.062	15.679
40	11.028	13.653	16.756
45	11.858	14.340	17.109
50	12.272	15.012	17.935
55	12.549	15.554	18.306
60	12.633	16.182	18.848
65	12.876	16.787	19.423
70	13.376	17.157	20.115
75	13.909	17.742	20.724
80	14.271	18.396	21.916
85	15.148	19.210	22.218
90	15.909	19.993	22.943
95	16.947	20.966	23.799
100	17.664	21.484	10.011

t	(α) C	D	E	b	F
			40%		
0	4.570	4.570	5.459	-	7.082
25	8.155	8.155	9.138	-	10.165
50	10.530	10.530	12.084	-	14.730
75	12.138	12.138	14.222	16.693	17.781
100	15.392	15.392	17.506	20.558	22.680
			50%		
0	5.641	6.425	5.771	5.746	5.635
25	7.134	8.429	8.953	8.871	7.971
50	9.284	9.976	11.584	11.600	12.316
75	10.948	12.727	14.687	14.867	16.270
100	13.457	15.253	17.819	18.467	19.671

Wendell, 1898

%	(α) C	D	E	b	F
			20°		
10.0613	11.73	13.44	16.25	16.72	17.54
20.9248	10.34	12.23	13.82	14.30	14.62
30.0836	9.42	10.89	12.17	12.72	12.48
38.5768	8.18	9.42	10.46	10.58	10.19
48.8329	6.82	7.62	8.16	8.14	7.53

t	(α) C	D	E	b	F
			41.1793%		
0	5.75	6.05	5.98	5.75	4.14
10	6.80	7.50	7.80	7.75	7.11
20	7.75	8.86	9.689	9.689	9.37
30	8.73	10.04	11.36	11.53	11.32
50	10.41	12.14	14.10	14.41	14.85
			18.656%		
0	8.90	9.77	11.70	11.33	10.70
10	10.04	11.49	12.95	13.16	12.99
20	10.06	12.57	14.22	14.66	14.72
30	11.43	13.26	15.60	16.00	16.31
50	12.70	14.81	17.69	18.17	19.02

Pribram and Glücksmann, 1898

%	$(\alpha)_D$	%	$(\alpha)_D$
	20°		
0.2091	16.85	16.063	12.44
0.7171	15.93	18.186	12.15
1.0140	15.44	19.186	12.04
1.2391	15.26	20.698	11.87
2.0084	14.98	30.161	10.48
4.0098	14.35	33.847	9.97
5.0894	14.06	35.751	9.72
6.2049	13.91	44.330	8.29
10.8870	13.19	49.946	7.37

Lepeschkin, 1899

w.l.	(α) 66.48% 20°	63.17% 40°	62.26% 50°	62.26% 60°
6659	+3.82	+6.68	+7.79	+8.60
5919	4.07	7.83	9.19	10.14
5330	3.48	8.25	10.13	11.43
4885	2.05	7.97	10.37	11.99
4482	1.22	6.14	9.19	11.46

Winther, 1902

t	(α) red	t	(α) yellow	t	(α) green
			48.39%		
16.3	+6.26	17.0	+7.13	16.9	+7.24
27.1	7.41	29.0	8.61	28.4	9.15
40.0	8.41	40.7	10.00	40.3	10.86
51.1	9.35	52.2	11.10	52.0	12.40
61.6	10.06	60.5	11.81	61.0	13.53

t	(α) pale blue	t	(α) dark blue
	48.39%		
16.7	+5.40	16.5	+3.66
27.6	8.01	28.0	6.97
40.2	10.69	40.0	9.83
51.8	13.00	51.5	12.40
61.2	14.65	61.1	14.33

t	(α) red	t	(α) yellow	t	(α) green
			41.30%		
16.0	+7.17	16.0	+8.23	16.3	+8.69
27.5	8.20	26.9	9.45	28.7	10.43
40.3	9.34	40.0	10.85	41.2	12.35
51.2	10.06	51.3	11.89	51.9	13.62
60.5	10.67	60.3	12.71	60.6	14.52

t	(α) pale blue	t	(α) dark blue
	41.30%		
16.2	+7.39	16.1	+6.00
27.9	9.98	28.3	8.98
40.9	12.75	40.6	12.08
51.6	14.69	51.3	14.22
60.5	16.07	60.5	16.05

t	(α) red	t	(α) yellow	t	(α) green
			37.37%		
17.5	+7.80	17.6	+8.90	16.6	+9.43
29.3	8.84	28.3	10.23	31.0	11.56
41.0	9.73	41.2	11.48	41.0	12.91
51.0	10.47	51.0	12.50	51.0	14.08
62.0	11.06	61.7	13.25	62.1	15.16

t	(α) pale blue	t	(α) dark blue
	37.37%		
16.6	+8.54	17.4	+7.48
30.0	11.46	30.6	10.72
41.0	13.57	41.0	13.05
51.0	15.22	51.0	15.06
62.0	17.07	62.1	17.16

t	(α) red	t	(α) yellow	t	(α) green
		24.13%			
16.1	+9.23	16.0	+10.79	16.6	11.98
28.6	10.18	27.9	12.00	29.9	13.76
40.4	11.05	40.5	13.12	40.3	14.95
51.6	11.42	51.1	14.01	51.2	16.05
61.9	12.28	62.1	14.74	60.4	16.89

t	(α) pale blue	t	(α) dark blue
	24.13%		
16.4	+12.09	16.2	+11.09
29.1	14.43	29.6	14.17
40.3	16.37	40.4	16.45
52.0	18.09	51.8	18.13
61.7	19.51	61.2	19.89

t	(α) red	t	(α) yellow	t	(α) green
		9.68%			
16.1	+10.79	19.8	+13.07	19.4	+15.15
28.6	11.62	29.7	14.30	31.8	16.40
40.4	12.47	41.2	15.06	41.8	17.36
51.6	12.72	50.0	15.52	51.0	18.02
61.9	13.40	62.2	16.02	61.0	18.93

t	(α) pale blue	t	(α) dark blue
	9.68%		
19.5	+16.14	19.5	+15.05
31.0	18.09	31.4	18.29
41.8	19.46	41.5	19.95
50.7	20.84	50.8	21.54
62.2	21.97	61.8	22.87

Grossmann and Wieneke, 1906 (fig.)

t	(α)	t	(α)
	37.806%		
10	8.0	60	13.2
20	9.2	70	13.9
30	10.4	80	14.5
40	11.4	90	15.2
50	12.3		
	26.650%		
10	9.9	60	14.4
20	10.9	70	15.0
30	11.9	80	15.5
40	12.9	90	16.0
50	13.7		
	26.011%		
10	10.9	60	15.5
20	11.9	70	16.1
30	13.0	80	16.7
40	13.9	90	17.1
50	14.7		
	10.776%		
10	12.5	60	15.6
20	13.3	70	17.2
30	14.3	80	17.7
40	15.1	90	18.1
50	15.9		

Descamps, 1939

w.l.	(α)			
c	1.1009	9.9030	19.7966	49.5057
5780	16.20	14.06	12.83	9.97
5461	17.41	15.15	13.76	9.92
4358	20.68	16.78	14.29	7.61
4047	19.64	14.21	11.12	3.25
3650	8.93	-	-	-
3654	-	2.91	0.00	-11.04
3342	-7.14	-20.41	-26.53	-40.71
3132	-45.53	-59.96	-67.92	-85.33
3126	-	-60.32	-69.10	-86.32
3022	-83.32	-94.58	-102.37	-123.33
2967	-106.23	-117.57	-127.42	-148.49
2926	-	-	-144.97	-
2894	-	-158.91	-169.49	-
2804	-222.29	-233.82	-246.96	-275.82
2652	-443.70	-467.09	-483.95	-522.96
2536	-856.13	-	-927.95	-

Heat constants

Thomsen, 1886-87

mol%	U
18°	
0.5	0.975
1.0	.952
2.0	.911
3.9	.856
9.0	.745

Richards and Gucker, 1925

t	U
4 mol%	
16	0.85200
18	.85328
20	.85445

4 mol% $d^{18} = 1.1352$

Water + Citric acid ($C_6H_8O_7$)

Tammann, 1885

%	p
100°	
14.50	747.4
29.89	725.2
37.08	710.3
47.29	676.7
53.29	649.3

Gerlach, 1886

%	b.t.	%	b.t.
0	100	79.77	117
20.63	101	80.83	118
33.55	102	81.82	119
42.53	103	82.74	120
49.11	104	83.60	121
54.24	105	84.55	122
58.41	106	85.34	123
61.89	107	86.06	124
64.85	108	86.80	125
67.37	109	87.50	126
69.57	110	88.13	127
71.47	111	88.74	128
73.14	112	89.34	129
74.65	113	89.96	130
75.99	114	90.49	131
77.32	115	91.34	132
78.58	116	91.40	132.5

Baroni, 1932

%	b.t.
2.16	100.077
4.25	100.145
7.05	100.245
10.34	100.378
13.82	100.352

Guthrie, 1878

%	f.t.	%	f.t.
10	-1.1	45	-11.3
20	-2.8	45.93	-11.7
30	-5.0	47.06	-12.2
40	-8.5	50.70	-13.7
42.62	-9.2 E	51.50	-15.0

Abegg, 1894

M	f.t.
0.415	-0.839
0.829	-1.790
1.244	-2.849
1.658	-4.167
2.073	-5.792

Jones, 1904 and Jones and Getman, 1904

M	f.t.	M	f.t.
0.05	-0.107	0.6	-1.253
.10	-0.207	0.8	-1.707
.20	-0.418	1.0	-2.230
.40	-0.830		

Kendall, Booge and Andrews, 1917

mol%	f.t.	mol%	f.t.
0.434	-0.839	1.70	-3.363
0.705	-1.350	2.01	-4.010
1.209	-2.360	2.41	-4.920
1.450	-2.849		

Kremann and Eitel, 1923

%	f.t.	%	f.t.
7.95	-0.90	43.88	-10.45
12.59	1.67	45.71	11.30
13.81	1.60	46.47	11.80 E
18.53	2.40	47.35	12.63
21.37	3.00	48.14	12.81
21.57	3.02	49.93	8.5
25.46	3.79	52.45	6.0
29.26	4.87	54.30	-3.0
31.57	5.30	56.31	+1.6
32.05	5.40	56.58	+1.2
34.93	6.30	56.77	0.0
35.72	6.59	58.78	+10.8
38.59	7.91	59.30	+10.0
39.89	8.00	59.06 ?	+15.0
41.50	-8.73	(1+1)	

Guttmann and Klema, 1927

% (1+1)	f.t.	% (1+1)	f.t.
53.3	0	58.4	8
53.7	1	59.1	9
54.1	2	59.8	10
54.7	3	60.9	11
55.4	4	62.2	12
56.0	5	63.4	13
56.6	6	64.7	14
57.5	7	66.0	15

Dalman, 1937 (fig.)

%	f.t.	%	f.t.
49	0	70	45
55	12	75	64
65	30	80	83
67.5	36	85	101

tr.t. (1+1) - anh. 67.61% 35.8°

Levien, 1955

Isopiestic solutions

m_1	m_2	m_1	m_2	m_1	m_2
		25°			
0.2093	0.1209	1.2264	0.7168	5.424	3.565
.2094	.1209	.697	1.012	5.532	.641
.2111	.1222	.751	.048	5.801	.824
.3084	.1766	2.359	.441	6.000	.956
.3914	.2246	.651	.638	6.714	4.445
.5390	.3105	.667	.644	6.954	4.597
.5427	.3113	.721	.680	7.619	5.034
.6479	.3730	3.154	.975	8.055	.308
.7794	.4496	3.855	2.460	8.245	.433
.8741	.5055	4.486	2.904	8.487	.588
1.0465	.6088	5.163	3.382	8.560	.636

m_1 = molality of citric acid

m_2 = molality of sodium chloride

Properties of phases.

Gerlach, 1859

%	d	%	d
	15°		
0	0.9990	35	1.1457
1	1.0028	36	.1565
2	.0065	37	.1554
3	.0092	38	.1602
4	.0140	39	.1651
5	.0177	40	.1699
6	.0218	41	.1746
7	.0259	42	.1804
8	.0300	43	.1841
9	.0341	44	.1889
10	.0383	45	.1937
11	.0422	46	.1988
12	.0461	47	.2039
13	.0500	48	.2092
14	.0540	49	.2142
15	.0579	50	.2193
16	.0623	51	.2246
17	.0666	52	.2296
18	.0709	53	.2348
19	.0753	54	.2399
20	.0796	55	.2451
21	.0839	56	.2503
22	.0880	57	.2561
23	.0920	58	.2616
24	.0962	59	.2672
25	.1004	60	.2727
26	.1050	61	.2783
27	.1096	62	.2838
28	.1142	63	.2893
29	.1188	64	.2949
30	.1234	65	.3004
31	.1278	66	.3295
32	.1323		
33	.1365		
34	.1412		

Schiff, 1860

%	d	%	d
	12°		
0	0.9995	26	1.1066
1	1.0032	27	.1111
2	.0070	28	.1157
3	.0108	29	.1203
4	.0146	30	.1249
5	.0185	31	.1296
6	.0224	32	.1343
7	.0263	33	.1390
8	.0302	34	.1437
9	.0342	35	.1485
10	.0382	36	.1533
11	.0423	37	.1581
12	.0464	38	.1630
13	.0505	39	.1679
14	.0546	40	.1728
15	.0588	41	.1778
16	.0630	42	.1828
17	.0672	43	.1878
18	.0714	44	.1929
19	.0757	45	.1980
20	.0800	46	.2030
21	.0844	47	.2082
22	.0888	48	.2134
23	.0932	49	.2186
24	.0976	50	.2238
25	.1021		

Traube, 1885

%	d
15°	
9.63	1.0384
18.60	1.0749

Gerlach, 1889

%	d
15°	
0	0.99910
10.16	1.04258
15.23	.06514
30.46	.13827
91.41	.55200

Linebarger, 1898

%	d	%	d
15°			
0	0.9991	31.11	1.1301
6.12	1.0223	43.52	.1865
8.03	.0313	58.00	.2656
18.05	.0708	64.53	.2990
29.96	.1243	65.08	.3011

Jones, 1904 and Jones and Getman, 1904

M	d	M	d
0°			
0.05	0.993624	0.6	1.042828
.10	1.004848	0.8	.059062
.20	.011476	1.0	.073460
.40	.033020		

Varga, 1911

%	d	%	d
18°			
0.3647	1.000002	22.3225	1.089852
0.8116	.001709	28.4235	.116825
1.5218	.004452	36.0234	.151823
3.4571	.012014	42.9956	.185407
5.7139	.020850	43.9391	.190085
8.5754	.032236	47.0661	.205715
11.8228	.045471	50.7597	.224534
15.6655	.061442	100	.542

Guillaume, 1946

%	d
20°	
7.66	1.0325
14.94	.0647
28.00	.1271
51.06	.2511

Levien, 1955

%	d	%	d
25°			
1.8722	1.00471	10.202	1.03989
3.7022	.01222	14.248	.05693
5.1469	.01820	19.258	.08074
7.2430	.02717		

Taimni, 1929

%	η					
	45°	40°	35°	30°	25°	20°
61.7	9100	10800	12900	15800	19400	24600
64.1	11400	13600	16600	20600	25800	33100
65.2	–	15900	19500	24000	30600	39900
67.4	16500	20800	26000	33200	43200	56800

Levien, 1955

m	η (water=1)	m	η (water=1)
25°			
0.12092	1.0539	0.7533	1.3753
.20890	.0948	0.9489	.4885
.39990	.1875	1.2602	.6802

Traube, 1885

%	σ
15°	
9.63	70.45
18.60	69.35

Linebarger, 1898

%	σ	%	σ
	15°		
0	75.49	31.11	65.41
6.12	69.35	43.52	65.17
8.03	68.91	58.00	65.19
18.05	66.27	64.53	65.18
29.96	65.46	65.08	65.19

Guillaume, 1946

%	*(α) magn.10^6 5780Å	n
	20°	
7.66	3.866	1.3438
14.94	.759	.3533
28.00	.564	.3725
51.06	.203	.4106

* in radians, gauss, centim.

Barbier and Roux, 1890

c	t	dispersive power
9.14	10.7	0.359
27.43	11.5	.385
36.57	10.8	.398
45.71	10.9	.409

Jones, 1904 and Jones and Getman, 1904

M	mol.cond.	M	mol.cond.
	0°		
0.05	24.20	0.6	6.99
.10	17.60	0.8	5.33
.20	13.04	1.0	4.23
.40	7.49		

Tammann and Tofaute, 1929

P Kg	t	Dλ/λ.100 1.0N	2.0N	4.0N
500	20	17.6	16.8	15.9
	40	15.0	15.0	14.8
1000	20	35.0	33.3	29.4
	40	30.2	30.7	28.2
1500	20	53.9	52.4	44.9
	40	46.9	46.6	42.9
2000	20	73.0	71.2	60.3
	40	63.4	63.1	57.7
2500	20	93.0	90.1	77.0
	40	81.5	79.5	72.4
3000	20	114.6	110.0	93.4
	40	98.7	96.0	88.6

Levien, 1955

M	apparent molar conductivity	M	apparent molar conductivity
	25°		
0.01799	72.16	0.2803	18.85
.04493	47.57	.4004	15.26
.06420	40.12	.7000	10.46
.11220	30.58	1.0000	7.79
.16030	25.46		

Telkessy, 1911

%	U	%	U
	at room temperature		
4.934	0.9629	40.533	0.7666
9.799	.9313	47.808	.7302
20.642	.8719	56.019	.6977
30.165	.8217		

Richards and Gucker, 1925

t	U
	4 mol%
16	0.82080
18	.82193
20	.82327

Water + Trifluoracetic acid ($C_2HF_3O_2$)

Swarts, 1922

%	b.t.	%	b.t.
0	100	32.55	100.78
18.97	100.25	52.69	101.70
19.95	100.36	75.14	105.10
20.21	100.35	79.40	105.45
23.31	100.40	100.00	72.40
26.75	100.55		

Cady and Cady, 1954

mol%	f.t.	
10.59	-21.55	E
20.00	-16.06	(4+1)
43.90	-45.51	E
50.00	-43.73	(1+1)
62.50	-49.56	
100.00	-15.36	

m	f.t.	m	f.t.
0.0878	-0.34	2.300	-7.32
.2397	-0.50	2.571	-8.20
.1832	-0.68	2.929	-9.22
.2955	-1.03	3.949	-12.52
.7206	-2.36	4.146	-13.20
.8164	-2.70	4.381	-13.92
1.134	-3.75	5.098	-16.10
.603	-5.12	5.997	-19.38
.884	-6.00	6.541	-21.53

Water + Monochloracetic acid ($C_2H_3ClO_2$)

Pickering, 1891

%	f.t. I	f.t. II	f.t. III	f.t. IV
100	61.18	56.01	-	-
97.51	-	51.40	-	-
96.19	52.13	47.74	-	-
96.02	-	-	41.4	-
93.96	-	-	-	29.8
92.41	44.32	38.63	-	-
88.69	35.94	31.39	-	-
87.67	-	-	-	16.8
84.95	28.39	-	-	-
81.46	20.12	15.88	-	-
80.36	-	-	-	3.1
76.52	11.22	5.48	-	-
73.38	-	-	-	-9.4
71.00	-0.40	-3.70	-	-
65.59	-7.80	-	-	-
60.83	-13.50	-	-	-

%	f.t.	%	f.t.
ice			
65.37	-15.9	29.89	-4.95
56.38	-11.1	16.11	-2.75
55.66	-11.9	8.45	-1.60
47.10	-8.25		

Auméras and Minangoy, 1948 (fig.)

%	f.t. I	f.t. II	f.t. III
20	-3.5	-	-
40	-8.5	-	-
50	-11.0	-	-
59	-14.5 E	-	-
65	-9.0	-	-
70	-1.0	-	-
80	18.5	-	16
90	40	29	35
100	62	51	56.5

Le Blanc, 1889

%	d
20°	
0	0.99823
31.90	1.11752

Charpy, 1893

%	d	%	d
0°			
0	0.9987	42.1525	1.1823
11.8965	1.0485	50.8560	.2236
22.8465	.0953	59.0413	.2639
32.2771	.1383		

Humburg, 1893

%	d
16°	
13.2168	1.0485
20.4558	1.0770

Le Blanc and Rohland, 1896

%	d
20°	
10.11	1.0354
19.60	1.0711

Drucker, 1905

c	d 25°	d 35°	c	d 25°	d 35°
0	0.99707	0.99409	60.01	1.24098	1.22934
3.348	1.00908	1.00550	72.11	.29702	-
7.698	.02484	.02100	87.38	.36920	.35640
10.090	.03387	.02959	95.41	.39060	.37950
31.540	.14651	.11029	95.96	-	.39160
49.970	.19412	.18510			

Waring, Steingiser and Hyman, 1943

mol%	d
25°	
1.90	1.0316
4.19	.0770
13.00	.1580

Turbaba, 1890

mol%	a.10^7	b.10^9
2	1095	4925
4	2310	4260
8	3970	3400

V_t (0 - 30°) = $1 + at + bt^2$

Drucker, 1905

%	σ 25°	σ 35°	%	σ 25°	σ 35°
3.348	67.40	66.20	49.97	48.35	47.55
7.698	62.15	61.05	60.01	47.45	46.20
10.090	59.75	58.75	72.11	45.75	44.79
31.540	51.05	50.30			

Drucker, 1905

%	π	%	π
25°			
0	47.0	49.69	42.7
20.82	46.1	62.10	44.2
35.53	42.7	79.96	45.0

Somogyi, 1916

%	t	capillary rise
1.720	19.1	83.45
3.440	19.0	79.60
6.880	18.2	74.00
10.509	18.2	69.35
14.582	18.2	65.00
20.907	18.1	60.50

Le Blanc, 1889

%	n_D
20°	
31.90	1.36650

Le Blanc and Rohland, 1896

%	n_D
20°	
10.11	1.3434
19.60	.3534

Waring, Steingiser and Hyman, 1943

mol%	n_D
25°	
1.90	1.3435
4.19	.3550
13.00	.3775

Humburg, 1893

%	$(\alpha)^{mol}_{magn.}$
16°	
0	1.0000
13.2168	3.8060
20.4558	3.8391

Water + Dichloracetic acid ($C_2H_2Cl_2O_2$)

Pickering, 1891

%	f.t.	%	f.t.
7.35	-1.25	70.27	-18.2
17.59	-3.15	75.42	-29.2
37.79	-6.05	92.47	-16.8
53.14	-9.20	96.86	0.7
63.46	-12.40	100.00	+10.7

Le Blanc, 1889

%	d
	20°
0	0.99823
20.79	1.09336

Le Blanc and Rohland, 1896

%	d
	20°
20.79	1.0934
29.82	1.1369

Drucker, 1905

c	d		c	d	
	25°	35°		25°	35°
0	0.99707	0.99409	13.28	1.05640	1.05194
3.17	1.01188	1.00788	47.93	.22953	.22088
6.60	.02479	.02093	68.44	.34872	.33743
13.03	.05539	.05104	98.42	.54249	.54249

Frivold and Rund, 1932

%	d	%	d
	18°		
0	0.99870	25.641	1.11794
1.774	1.00693	37.556	.17723
3.852	.01622	52.473	.25973
7.659	.03299	100	.56100
12.687	.05633		

Waring, Steingiser and Hyman, 1943

mol%	d
	25°
2.99	1.0869
6.92	.1555
23.30	.3470
58.40	.4921
80.95	.5339

Drucker, 1905

%	π	%	π
	25°		
20.81	45.6	54.96	46.1
32.09	44.0	86.08	48.6
43.92	44.3	99.26	59.2

%	σ	
	25°	35°
3.170	62.60	62.25
6.600	55.50	55.05
13.03	45.00	44.80
47.93	41.10	40.80
98.42	37.40	36.05

Le Blanc, 1889

%	n_D
	20°
0	1.33325
20.79	1.35756

Le Blanc and Rohland, 1896

%	n_D
	20°
20.79	1.3572
29.82	1.3686

Frivold and Rund, 1932

%	n C	n D	n F
		18°	
0	1.33130	1.33315	1.33730
1.774	.33355	.33540	.33959
3.852	.33599	.33793	.34209
7.659	–	.34218	.34644
12.687	.34618	.34815	.35252
25.641	.36169	.36372	.36828
37.556	.37589	.37813	.38294
52.473	.39576	.39812	.40327
100	.46380	.46651	.47285

Waring, Steingiser and Hyman, 1943

mol%	n_D
25°	
2.99	1.3533
6.92	.3734
23.30	.4215
58.40	.4530
80.95	.4611

Water + Trichloracetic acid ($C_2HCl_3O_2$)

Pickering, 1891

%	f.t.	%	f.t.
6.05	-1.05	75.28	-29.8
10.66	2.00	79.84	44.7
17.59	3.85	83.22	35.7
25.41	5.95	86.77	18.0
37.30	8.9	89.94	0.0
53.12	12.5	93.60	+25.7
64.99	18.2	96.98	44.3
71.13	-22.7	100.00	59.01

Kendall and King, 1925

mol%	f.t.	mol%	f.t.
0.277	-0.530	1.439	-2.697
0.528	-0.994	1.722	-3.223
0.765	-1.451	2.032	-3.791
1.002	-1.884	2.293	-4.256
1.264	-2.373	2.541	-4.697

Le Blanc, 1889

%	d
20°	
14.13	1.07369
30.11	1.16168

Humburg, 1893

%	d
16°	
10.4288	1.0528
20.6568	1.1094

Charpy, 1893

%	d	%	d
	0°		
0	0.9987	65.1253	1.4156
21.2652	1.1203	76.2650	.5051
36.8381	.1280	86.3485	.5910
52.6315	.3223		

Drucker, 1905

c	d 25°	d 35°	c	d 25°	d 35°
0	0.99707	0.99409	40.16	1.21813	1.20972
3.196	1.01317	1.00916	71.15	.42672	.41437
3.819	.01663	.01275	86.84	.54781	.53479
8.557	.04045	.03663	95.19	.62040	.60730
15.560	.07750	–			

Zecchini, 1905

%	t	d	%	t	d
0	20	0.99823	27.257	19.8	1.14742
10.157	19.9	1.05090	41.949	20.2	.23408
17.148	19.7	1.08931	57.879	19.7	.34088

de Kolossowsky, 1925

t	d	t	d
24.31%		16.09%	
9.00	1.131	9.40	1.084
17.05	.129	11.45	.084
24.00	.128	17.75	.082
29.00	.127	24.90	.081
		30.50	.080

Schreiner, 1928

M	d	M	d
18°			
0.119	1.00827	1.520	1.11770
.316	.02406	1.926	.14750
.382	.02939	2.644	.19810
.475	.03656	3.080	.22864
.600	.04681	3.479	.25514
.757	.05910	3.982	.28931
1.011	.07869	5.134	.36471
1.026	.08004		

Frivold and Rund, 1932

%	d	%	d
18°			
0	0.998622	13.779	1.08150
2.882	1.012890	35.279	.19312
6.884	1.033730	44.761	.25163

Turbaba, 1890

mol%	$a.10^7$	$b.10^9$
0.5	8	5662
1.0	551	5246
2.0	1526	4826
4.0	3500	3419

$v_t\ (0 - 30°) = 1 + at + bt^2$

Waring, Steingisen and Hyman, 1943

mol%	d
25°	
1.72	1.0610
3.73	.1375
5.22	.1685

Drucker, 1905

%	π	%	π
25°			
0	47.0	30.75	44.9
10.34	46.4	52.98	47.3
22.20	45.1	74.57	52.1

de Kolossowsky, 1925

t	η	t	η
24.31%		16.09%	
9.00	2504	9.40	2019
17.05	1888	11.45	1884
24.00	1535	17.75	1548
29.00	1337	24.90	1268
		30.50	1109

Schreiner, 1928

M	η(water=1)	M	η(water=1)
18°			
0.105	1.045	1.926	1.910
.382	.156	2.644	2.338
.600	.256	3.080	2.614
.757	.312	3.479	2.893
1.011	.445	3.982	3.331
1.520	.705	5.134	4.370

Drucker, 1925

%	σ 25°	σ 35°	%	σ 25°	σ 35°
3.196	67.75	66.35	40.16	41.60	39.90
3.813	66.80	65.10	71.15	38.22	37.20
8.557	58.10	56.10	86.84	36.80	36.15
15.560	49.65	47.75			

Le Blanc, 1889

%	n_D
20°	
14.13	1.35218
30.11	1.37346

Zecchini, 1905

%	t	n_D	%	t	n_D
0	20	1.33298	27.257	19.8	1.37006
10.157	19.9	.34616	41.949	20.2	.38968
17.148	19.7	.35577	57.879	19.7	.41300

Frivold and Rund, 1932

%	n_C	n_D
	18°	
0	1.33130	1.33315
2.882	.33496	.33687
6.384	.34023	.34214
13.779	.35213	.38091
35.279	.37864	.39385
44.761	.39159	

Waring, Steingisen and Hyman, 1943

mol%	n_D
25°	
1.72	1.3494
3.73	.3760
5.22	.3767

Humburg, 1893

%	$(\alpha)^{mol}_{magn.}$
16°	
0	1.0000
10.4288	6.5258
20.6568	6.5342

Whetham, 1897

%	κ	%	κ
	15.6°		
100	0.00	80.52	211.5
99.20	0.005	71.26	688
98.41	0.020	47.00	2380
96.87	0.162	31.20	3070
95.38	0.689	19.50	2020
93.94	2.115	8.20	1850
92.53	5.076	4.10	1050
89.85	18.30	2.05	571
86.10	61.67	1.02	299

Kendall and King, 1925

mol%	κ	mol%	κ
	0°		
0.212	247.3	0.738	723.5
.270	308.2	0.907	844.8 ?
.475	502.7	1.507	1177.0
.524	548.9		

Schreiner, 1928

M	λ	M	λ
	18°		
0.105	300	1.926	116
.382	252	2.644	79
.600	227	3.080	61.5
.757	209	3.479	50
1.011	185	4.982	37
.520	142	5.134	18

Water + Monobromacetic acid ($C_2H_3BrO_2$)

Charpy, 1893

%	d	%	d
	0°		
0	0.9987	52.3582	1.3859
16.2377	1.0974	61.3119	.4784
29.7896	.1932	69.2130	.5696
42.0055	.2913		

Humburg, 1893

%	d	$(\alpha)^{mol}_{magn.}$
	16°	
0	0.9990	1.0000
19.9427	1.1161	5.7619
30.9545	1.1913	5.7079

Traube, 1896

%	d
15°	
11.132	1.06254
20.474	.12116
29.372	.18183

Somogyi, 1916

%	t	a^2
1.185	19.9	7.305
2.370	19.9	6.825
4.739	19.9	6.364
11.132	19.8	6.139
20.474	19.8	5.633
29.372	20.3	5.394

mol%	a^2
	20°
0.0312	6.460
.0625	6.060
.1250	5.640

Water + Tribromacetic acid ($C_2HBr_3O_2$)

Charpy, 1893

%	d	%	d
	0°		
0	0.9987	46.9183	1.4238
15.1337	1.1094	54.7900	.5280
27.5940	.2175	61.5850	.6300
38.0610	.3222		

Humburg, 1893

%	d	$(\alpha)^{mol}_{magn.}$
	16°	
0	0.9990	1.0000
8.5535	1.0606	12.2990
20.5283	.1602	12.2930
32.0282	.2735	12.3042

Water + α -Brompropionic acid ($C_3H_5O_2Br$)

Hantzsch and Dürigen, 1928

%	d	n_D
	20°	
7.8404	1.0310	1.34070
14.566	.0639	.34769
22.179	.1023	.35579
100	.6680	.46987

Water + Trichlorbutyric acid ($C_4H_5Cl_3O_2$)

Humburg, 1893

%	d	(α)current=1
16°		
0	0.9990	100.965
20.2963	1.0796	104.441
32.6527	1.1335	107.644

Le Blanc and Rohland, 1896

%	d	n_D
	20°	
0	0.9982	0.9982
15.34	1.0570	1.3519
18.08	1.0670	1.3549

Water + Trichloracrylic acid ($C_3HCl_3O_2$)

Boeseken and Carriere, 1915

wt%	mol%	f.t.	wt%	mol%	f.t.
0.00	0.00	0	70.25	19.52	15.3
1.33	.14	-0.267	71.87	20.78	15.9
2.01	.21	-0.357	75.34	23.88	16.9
4.50	.50	-0.6 E	77.05	25.64	17.3
4.71	.51	+2.8	-	30.60	17.0 E
7.25	.80	+37.8	77.97	26.66	11.2
10.14	1.15	46.6	79.09	27.96	12.7
18.77	2.32	54.1	80.38	29.61	14.9
28.97	4.02	57.8	81.78	31.54	17.7
39.92	6.39	60.0	81.91	31.73	18.9
40.03	6.42	60.85	82.77	33.03	20.3
44.37	7.57	60.85	85.23	37.19	26.5
46.75	8.27	60.85	87.23	41.23	32.8
57.66	12.27	53.0	90.34	48.97	42.3
60.67	13.68	46.5	93.20	58.46	54.0
64.08	15.49	19.5	96.44	73.53	60.5
67.15	17.35	14.7	100.00	100.00	72.9

C.S.T. 7.5 mol% 60.85°

L_1+L_2+ (5+2) 15.5 mol% 13.7°

(5+2) f.t. = 19.2°

Water + Chlorsuccinic acid d + l ($C_4H_7O_4Cl$)

Machtelinckx, 1951

%	f.t.	E
3.8	-0.52	-
7.5	-1.01	-
12.19	-1.60	-1.39
13.70	-1.75	-1.39
17.90	-2.03	-1.39

Water + Cyanacetic acid ($C_3H_3NO_2$)

Traube, 1896

%	d
15°	
0	0.9991
4.734	1.01309
9.720	1.02714
16.982	1.04721

Somogyi, 1916

%	t	a^2
1.117	19.7	7.231
4.734	19.7	6.999
9.720	19.7	6.756
16.982	19.5	6.577

mol%	a^2
1.0	6.790
0.5	7.000
0.25	7.140

Water + Glycine ($C_2H_5NO_2$)

Tammann, 1915

%	p
100°	
10.66	640.9
21.51	618.2
35.56	574.8

Dalton and Schmidt, 1933

%	f.t.	%	f.t.
12.42	0	26.52	45
13.81	5	28.11	50
15.28	10	29.66	55
16.68	15	31.16	60
18.38	20	32.59	65
19.99	25	33.95	70
21.62	30	35.23	75
23.26	35	40.18	100
24.87	40		

Dunn, Ross and Read, 1933

%	f.t.
12.52	0
20.20	25
28.65	50
36.51	75
42.93	100

Dalton and Schmidt, 1933

%	d	%	d
25°			
1.33	1.00227	10.48	1.04171
2.42	.00728	11.81	.04736
3.07	.01003	13.27	.05378
4.20	.01487	14.44	.05871
4.88	.01888	15.68	.06408
5.92	.02212	17.18	.07011
6.88	.02626	18.96	.07818
8.35	.03257	20.41	.08450
9.21	.03618		

Gucker, Ford and Moser, 1939

M	m	d	M	m	d
		25°			
0.00000	0.00000	0.997074	0.6010	0.6190	1.01590
.10020	.10090	1.000180	0.8918	0.9311	.02476
.10056	.10129	.000286	1.0003	1.0496	.02810
.20112	.20348	.003486	.2001	.2701	.03434
.40024	.40853	.009746	.7991	.9629	.05163
.59794	.61579	.015898	2.3976	2.6972	.06890

Jacobson, 1951

M	d	π	sound velocity m/sec.
	20°		
0.000	0.9982	45.40	-
.193	1.0043	44.50	1495.8
.323	.0084	43.86	1503.7
.383	.0103	43.61	1506.5
.505	.0141	43.10	1512.7
.619	.0175	42.56	1519.7
1.177	.0346	40.32	1548.3
2.000	.0587	37.33	1590.7
2.561	.0743	35.53	1618.6

Bridgman and Dom, 1935

P Kg	d 0%	0.5 N	1.0 N	1.5 N	2.0 N	2.5 N
			25°			
1	0.9970	1.01268	1.02822	1.04303	1.5775	1.07281
250	1.0072	.0233	.0402	.0540	.0681	.0832
500	.0169	.0333	.0520	.0643	.0782	.0939
750	.0266	.0424	.0629	.0740	.0877	.1042
1000	.0362	.0532	.0734	.0836	.0972	.1142
1500	.0533	.0677	.0920	.1021	.1159	.1324
2000	.0689	,0825	.1096	.1192	.1380	.1489
2500	.0832	.0969	.1414	.1354	.1490	.1646
3000	.0966	.1104	.1692	.1510	.1645	.1794
4000	.1121	.1346	.1949	-	.1908	.2066
5000	.1443	.1560	.2191	-	.2143	.292
6000	.1658	.1745	-	-	-	-
			75°			
500	0.9945	1.0082	1.0244	1.0358	1.0544	1.0674
750	1.0031	.0167	.0345	.0454	.0637	.0771
1000	.0116	.0251	.0449	.0547	.0729	.0870
1500	.0278	.0419	.0635	.0733	.0907	.1051
2000	.0440	.0571	.0807	.0907	.1067	.1216
2500	.0589	.0718	.0967	.1066	.1211	.1367
3000	.0724	.0856	.1120	.1217	.1359	.1506
4000	.0968	.1096	.1403	-	.1607	.1773
5000	.1188	.1303	.1652	-	.1836	.2015
6000	.1393	.1488	.1882	-	.2055	.2243
7000	.1497	.1661	.2092	-	.2259	.2450
8000	.1752	.1822	.2286	-	.2462	.2644

Hedestrand, 1922

N	η (water=1) 18°	40°
0.4	1.055	0.6550
1.0	1.153	0.7235
2.0	1.362	-

Gucker, Ford and Moser, 1939

M (25°)	m	U 5°	25°	40°
0.0000	0.0000	1.00000	1.00000	1.00000
.0983	.0990	-	0.99353	-
.1002	.1009	0.99211	-	0.99387
.1995	.2019	-	0.98699	-
.2989	.3042	-	.98074	-
.2997	.3055	0.97713	.98061	0.98201
.3995	.4078	-	.97446	-
.6010	.6190	0.95604	.96241	0.96487
.8918	.9311	.93727	.94566	.94901
1.2001	1.2710	.91886	.92905	.93315
1.7991	1.9629	.88624	.89899	.90421
2.3976	2.6972	-	.87151	.87767
2.6950	3.0792	-	.85844	-

Water + Alanine ($C_3H_7NO_2$)

Tammann, 1915

%	p
100°	
12.09	740.6
25.83	709.5
33.55	686.8

Robinson, Smith and Smith, 1942

m_1	m_2	m_3	m_4
1.189	-	1.308	1.304
.282	1.418	-	.417
.339	.512	1.510	.511
.491	.671	.673	.672
.569	.761	.766	.763
.620	.830	.830	.830

1 - sucrose

2,3,4 - Alanine, d (-), 1 (+) and dl

Water + α-Alanine dl ($C_3H_7NO_2$)

Dalton and Schmidt, 1933

%	f.t.	%	f.t.
10.79	0	17.79	45
11.43	5	18.75	50
12.11	10	19.76	55
12.80	15	20.81	60
13.55	20	21.87	65
14.33	25	23.01	70
15.14	30	24.17	75
15.98	35	30.57	100
16.87	40		

Dunn, Ross and Read, 1933

%	f.t.
10.80	0
14.22	25
19.01	50
24.35	75
29.67	100

Dalton and Schmidt, 1933

%	d	%	d
	25°		
15.00	1.04571	7.36	1.02084
13.54	.04094	5.72	.01553
13.09	.03950	4.13	.01035
12.03	.03596	2.51	.00529
10.64	.03148	1.15	.00074
9.19	.02677		

Water + α-Alanine d ($C_3H_7NO_2$)

Pellini and Coppola, 1914

%	f.t.
11.49	.10
13.17	17
14.81	30

Dalton and Schmidt, 1933

%	f.t.	%	f.t.
11.29	0	17.11	45
11.84	5	17.87	50
12.41	10	18.67	55
13.01	15	19.52	60
13.63	20	20.38	65
14.27	25	21.27	70
14.94	30	22.19	75
15.64	35	27.16	100
16.37	40		

%	d	%	d
	25°		
14.38	1.04367	5.26	1.01398
11.97	.03582	4.35	1.01102
10.23	.03010	2.92	1.00643
8.22	.02360	1.75	1.00266
7.37	.02082	0.89	0.99990
6.45	.01785		

Jacobson, 1951

M	d	π	sound velocity (m/sec.)
	20°		
0.000	0.9982	45.36	-
.105	1.0014	44.80	1493.0
.197	.0041	44.29	1499.6
.354	.0085	43.49	1510.0
.573	.0146	42.38	1525.0
.841	.0221	41.10	1542.9
1.223	.0321	39.40	1568.1
1.579	.0420	37.89	1591.6

Water + β-Alanine ($C_3H_7NO_2$)

Jacobson, 1951

M	d	π	sound velocity (m/sec.)
	20°		
0.000	0.9982	45.30	-
.115	1.0019	44.68	1494.7
.253	.0062	43.94	1503.9
.474	.0128	42.81	1518.6
.757	.0213	41.45	1537.0
1.119	.0318	39.79	1560.7
1.571	.0446	37.91	1589.0
2.140	.0603	35.63	1627.0

Water + Aminobutyric acid ($C_4H_9NO_2$)

Bridgman and Dow, 1935

P Kg	d 0%	0.5 N	1.5 N
		25°	
1	0.9970	1.01075	1.03767
250	1.0072	.0228	.0480
500	.0169	.0341	.0577
750	.0266	.0439	.0667
1000	.0362	.0528	.0748
1500	.0533	.0681	.0897
2000	.0689	.0827	.1035
2500	.0832	.0961	.1172
3000	.0966	.1087	.1341
4000	.1121	.1133	.1585
5000	.1443	.1156	-
6000	.1658	.1175	-
7000	.1865	.1193	-
8000	.2064	.1209	-
		75°	
500	0.9945	1.0084	1.0313
750	1.0031	.0180	.0400
1000	.0116	.0267	.0486
1500	.0278	.0424	.0645
2000	.0440	.0568	.0787
2500	.0589	.0707	.0916
3000	.0724	.0833	.1049
4000	.0968	.1060	.1588
5000	.1188	.1283	-
6000	.1393	.1488	-
7000	.1497	-	-
8000	.1752	-	-

Water + Aminoisovaleric acid ($C_5H_{11}NO_2$)

Dunn, Ross and Rund, 1933

%	f.t.
6.55	0
6.92	25
8.62	50
11.74	75
16.67	100

Dalton and Schmidt, 1933

%	f.t.	%	f.t.
5.62	0	7.94	45
5.78	5	8.35	50
5.96	10	8.83	55
6.16	15	9.32	60
6.38	20	9.89	65
6.62	25	10.51	70
6.91	30	11.20	75
7.21	35	15.83	100
7.57	40		

Water + Aminocaproic acid ($C_6H_{13}NO_2$)

Bridgman and Dow, 1935

P Kg	d 0%	0.5 N	1 N	1.5 N
		25°		
1	0.9970	1.01041	1.02338	1.03620
250	1.0072	.0211	.0358	.0444
500	.0169	.0313	.0478	.0525
750	.0266	.0409	.0593	.0606
1000	.0362	.0504	.0698	.0679
1500	.0533	.0681	.0884	.0823
2000	.0689	.0849	.1049	.0954
2500	.0832	.1001	.1203	.1076
3000	.0966	.1145	.1357	.1193
4000	.1121	.1415	.1645	.1405
5000	.1443	-	.1906	.1597
6000	.1658	-	.2142	.1765
7000	.1865	-	.2373	.1927
8000	.2064	-	.2587	.2078

P Kg	1.75 N	2.0 N	2.5 N
1	1.04221	1.04822	1.06016
250	.0507	.0575	.0689
500	.0592	.0667	.0775
750	.0670	.0749	.0855
1000	.0742	.0838	.0934
1500	.0876	.0994	.1062
2000	.0999	.1138	.1210
2500	.1059	.1265	.1342
3000	.1224	.1400	.1447
4000	.1424	.1634	.1668
5000	.1611	.1852	.1860
6000	.1781	.2061	.2042
7000	.1948	.2267	-
8000	.2129	.2467	-

P Kg	d 0%	0.5 N	1 N	1.5N
		75°		
500	0.9945	1.0051	1.0167	1.0313
750	1.0031	.0148	.0280	.0395
1000	.0116	.0235	.0386	.0474
1500	.0278	.0405	.0584	.0613
2000	.0440	.0569	.0756	.0745
2500	.0589	.0724	.0916	.0868
3000	.0724	.0868	.1067	.0983
4000	.0968	.1121	.1346	.1198
5000	.1188	.1338	.1598	.1398
6000	.1393	.1530	.1838	.1575
7000	.1497	-	.2061	.1734
8000	.1752	-	.2271	.1877

P Kg	1.75 N	2.0 N	2.5 N
500	1.0366	1.0399	1.0577
750	.0441	.0494	.0639
1000	.0514	.0577	.0718
1500	.0644	.0737	.0865
2000	.0776	.0887	.1003
2500	.0900	.1022	.1130
3000	.1015	.1154	.1248
4000	.1217	.1384	.1464
5000	.1399	.1597	.1658
6000	.1564	.1799	.1841
7000	.1728	.1990	.1998
8000	.1876	.2188	.2145

Water + β-1-Asparagine ($C_4H_8N_2O_3$)

Bresler, 1901

%	f.t.	%	f.t.
0.95	0.7	9.63	55.5
1.42	7.9	16.56	71.7
2.10	17.5	26.77	87.0
3.07	28.0	34.41	98.0
5.35	41.4		

Dalton and Schmidt, 1935

%	f.t.	%	f.t.
0.84	0	6.87	45
1.09	5	8.36	50
1.41	10	10.07	55
1.80	15	12.03	60
2.30	20	14.25	65
2.91	25	16.70	70
3.64	30	19.41	75
4.53	35	35.55	100
5.60	40		

Water + β-1-Aspartic acid ($C_4H_7NO_4$)

Bresler, 1901

%	f.t.	%	f.t.
0.26	0.2	1.25	51.0
.40	9.5	1.78	63.5
.51	16.4	2.29	70.0
.75	31.5	3.10	80.5
.92	40.0	5.10	97.4

Water + Glutamic acid dl ($C_5H_9NO_4$)

Dalton and Schmidt, 1933

%	f.t.	%	f.t.
7.84	0	3.98	45
1.01	5	4.71	50
1.20	10	5.55	55
1.42	15	6.55	60
1.69	20	7.71	65
2.01	25	9.04	70
2.38	30	10.60	75
2.82	35	22.17	100
3.36	40		

Water + Taurine ($C_2H_7NO_3S$)

Dalton and Schmidt, 1935

%	f.t.	%	f.t.
3.78	0	16.15	45
4.65	5	17.95	50
5.65	10	19.76	55
6.79	15	21.51	60
8.08	20	23.23	65
9.49	25	24.84	70
11.02	30	26.34	75
12.66	35	31.39	100
14.37	40		

Water + Serine dl ($C_3H_7NO_3$)

Dalton and Schmidt, 1935

%	f.t.	%	f.t.
2.15	0	8.28	45
2.54	5	9.37	50
3.00	10	10.55	55
3.53	15	11.82	60
4.12	20	13.17	65
4.78	25	14.61	70
5.53	30	16.12	75
6.35	35	24.38	100
7.27	40		

Water + Betaine ($C_5H_{11}NO_2$)

Stolzenberg, 1914

%	f.t.	%	f.t.
57.39	-8	63.85	37.5
57.59	-7	71.15	76.2
61.10	+19.3	71.80	77.0
60.78	+19.5	76.11	96.5
64.71	38.0		

Water + Benzoic acid ($C_7H_6O_2$)

Timmermans and Kohnstamm, 1909-10

C.S.T.	limits of pressure	dt/dp
118.5	5 - 200 Kg	+0.0025

Kume, 1937

t	mol% 80.51	90.07	97.50	98.99	99.49	100
			P			p
80	0.450	0.454	0.444	0.457	0.455	-
85	-	.549	-	-	-	-
90	0.675	.681	0.673	0.679	0.676	-
95	-	.822	.823	.826	.821	-
100	0.978	.912	.921	.911	.917	39.2
105	-	.978	.987	.971	.975	-
110	1.366	1.139	.966	.949	.956	-
115	-	.345	.951	.850	.847	-
120	1.868	.550	.076	.672	.452	64.1
130	2.500	2.021	.381	.839	.537	-
140	3.327	2.602	.747	1.022	.655	98.1
150	4.331	3.285	2.163	.248	.796	-
160	5.523	4.111	2.023	.473	.934	135.3
170	6.944	5.077	3.158	.750	1.081	-
180	8.563	6.198	3.777	.055	1.277	217.4
200	-	-	-	-	-	311.2

Alexejew, 1886

%	sat.t.	%	f.t.
3.04	64	0.5	28
4.12	79.5	1.05	47
8.28	102	3.04	82
12.20	109	4.12	88
25.01	115.5	78.8	95.5
35.98	115.5	83.3	96
49.44	114	88.3	101
61.77	107	95.3	108.5
69.40	99.5	96.3	109.5
78.80	81.0	99.1	117

Sidgwick and Ewbank, 1921

%	f.t.
30.78	116.2 L_1+L_2
80.36	98.0 f.t.
	77.8 L_1+L_2
89.40	103.5 f.t.
100.00	122.7 f.t.

C.S.T. = 116.2

Ward and Cooper, 1930

%	f.t.	%	sat.t.
0.334	+ 24.6	5.599	89.7 L_1+L_2+C
0.628	42.4	6.471	95.3
1.093	57.8	7.19	98.6
2.067	74.1	11.19	109.4
3.130	83.1	20.61	116.1
3.966	88.3	32.34	117.2
5.599	93.2	46.37	116.3
75.68	95.5	61.36	109.7
87.72	101.4	69.01	101.1
100.00	122.7		

C.S.T.: 32% 117.2°

Water + o-Phthalic acid ($C_8H_6O_4$)

Flaschner and Rankin, 1909-10

%	f.t. I	f.t. II	%	f.t. I	f.t. II
100	231	-	39.6	121.2	-
75.0	162	84	28.2	111.5	-
49.3	130	27	14.4	97.0	-

Ward and Cooper, 1930

%	f.t.	%	f.t.
0.716	25.8	11.85	94.8
1.324	43.7	15.79	101.1
1.647	48.9	29.46	113.8
2.276	58.0	50.73	131.6
2.897	63.7	71.57	157.5
5.322	77.8	100.00	193.3 (decomp.)
7.594	85.7		

Water + Mellitic acid ($C_{12}H_6O_{12}$)

Guillaume, 1946

%	d	*( )magn.10^6	n 5780 Å
37.7	1.2102	3.859	1.4134

* in radians, gauss, centim.

Water + o-Toluic acid ($C_8H_8O_2$)

Sidgwick, Spurrell and Davies, 1915

%	sat.t.	%	f.t.
2.23	85.1	91.98	93.7
3.66	109.1	93.83	94.4
5.00	118.3	95.95	96.0
6.99	130.4	100.00	102.4
10.20	143.7		
20.23	156.5		
31.47	160.2		
39.92	161.2		
48.63	160.2		
60.16	154.6		
70.12	147.4		
84.64	119.8		
90.53	97.2		

C.S.T. = 161.2°

$L_1 + L_2 + C$ 93.5°

between 91.2 and 2.5%

Flaschner and Rankin, 1909-10

%	f.t.	sat.t.
10.0	94.0	147.6
39.7	94.6	158.6
69.2	94.8	150.4
89.5	95.0	108.0
100.0	104.0	-

Water + m-Toluic acid ($C_8H_8O_2$)

Sidgwick, Spurrell and Davies, 1915

%	sat.t.	%	f.t.
1.53	89.8	92.45	94.2
3.13	118.6	96.93	101.9
5.88	140.5	100.00	110.5
9.96	153.3		
29.94	162.2		
40.11	162.1		
50.10	160.7		
60.15	157.7		
71.17	145.1		
79.57	129.6		
82.06	121.8		
86.67	105.9		
89.32	96.4		

C.S.T. : 162.2

$L_1 + L_2 + C$ 91.8°

between 90.5 and 1.6%

Flaschner and Rankin, 1909-10

%	f.t.	sat.t.
2.6	96.0	111
9.9	96.0	153
40.0	96.6	160.4
69.6	97.6	147.0
78.3	97.4	132.6
90.6	99.6	89.4
100.0	110.0	-

Water + p-Toluic acid ($C_8H_8O_2$)

Sidgwick, Spurrell and Davies, 1915

%	f.t.	%	f.t.
1.51	114.4	40.57	158.5
2.96	133.7	50.38	158.0
4.97	141.4	60.55	152.6
10.08	150.9	79.68	145.1
20.27	157.9 L_1+L_2	92.52	156.5
30.14	159.1	100.00	176.8

C.S.T. = 159.1° L_1+L_2+C = 142°

between 74.0 and 5.0%

Flaschner and Rankin, 1909 - 1910

%	f.t.	sat.t.
9.9	145.4	150.6
25.0	-	158.2
40.0	145.6	158.0
54.9	-	155.0
68.3	146.4	146.0
80.4	148.0	-
87.0	155.0	-
100.0	179.4	-

Water + Cinnamic acid ($C_9H_8O_2$)

Kume, 1937

t	p				
	17.50 mol %	35.60 mol %	53.18 mol %	66.99 mol %	80.12 mol %
80	0.458	0.455	0.458	0.452	0.453
85	0.560	0.562	0.557	0.555	0.561
90	0.682	0.679	0.680	0.675	0.669
95	0.820	0.819	0.813	0.811	0.817
100	0.968	0.970	0.966	0.968	0.966
105	1.167	1.163	1.160	1.160	1.158
110	1.360	1.352	1.340	1.351	1.344
115	1.590	1.589	1.595	1.593	1.589
120	1.879	1.880	1.882	1.868	1.816
125	2.230	2.223	2.234	2.233	2:119
130	2.620	2.619	2.602	2.611	2.478
135	2.981	3.041	3.020	3.031	2.901
140	3.442	3.445	3.501	3.436	3.332
145	3.963	3.961	3.957	3.938	3.875
150	4.580	4.571	4.562	4.502	4.343
160	5.998	5.905	5.821	5.813	5.511
170	7.787	7.721	7.414	7.333	6.990
180	9.822	9.063	9.431	9.232	8.923
	89.69 mol %	95.01 mol %	97.61 mol %	98.90 mol %	99.29 mol %
80	0.449	0.454	0.452	0.443	0.448
85	0.554	0.554	0.559	0.553	0.561
90	0.673	0.678	0.677	0.677	0.672
95	-	0.812	0.815	0.810	0.809
100	0.967	0.968	0.969	0.970	0.965
105	1.162	1.160	1.164	1.159	1.156
110	1.305	1.300	1.275	1.277	1.276
110	-	-	1.303	-	-
115	1.404	1.397	1.388	1.279	1.279
115	-	-	-	-	1.390
120	1.691	1.419	1.400	1.398	1.396
125	1.971	1.610	1.341	1.295	1.298
130	2.273	1.825	1.514	1.051	0.845
135	2.609	-	--	-	-
140	2.961	2.341	1.908	1.283	1.009
150	3.780	2.805	2.238	1.473	1.065
160	4.578	c3.433	2.712	1.755	1.255
170	5.611	4.141	3.279	2.076	1.482
180	6.838	4.965	3.932	2.585	1.752

t	p	t	p
	100%		
100	13.2	170	37.5
120	23.9	180	52.2
130	17.2	200	98.1
140	18.8		

%	sat.t.	%	f.t.
17.50	131	50.17	107.2
35.60	139	80.12	114.7
49.00	140.5 C.S.T.	94.99	116.7
50.17	139.5	95.01	119.0
53.18	140.0	97.01	125.0
66.99	137	98.90	129.0
80.12	115	99.29	130.5
89.69	111.0		
92.23	110.5		

Water + o-Aldehydobenzoic acid ($C_8H_6O_3$)

Sidgwick and Clayton, 1922

%	f.t.	%	f.t.	sat.t.
100	100.5	59.48	53.2	39.2
91.66	75.0	40.83	51.8	44.0
87.20	64.5	29.20	49.9	45.75
81.50	58.1	20.00	48.92	43.3
		9.38	46.1	21.1

Water + m-Aldehydobenzoic acid ($C_8H_6O_3$)

Sidgwick and Clayton, 1922

%	f.t.	%	f.t.
100	175.0	49.45	114.6
86.76	140.0	40.28	113.5
81.88	132.9	29.97	112.3
70.72	121.5	19.87	110.7
58.87	116.6	11.22	107.5
		4.94	99.7

Water + p-Aldehydobenzoic acid ($C_8H_6O_3$)

Sidgwick and Clayton, 1922

%	f.t.	%	f.t.
100	250.0	32.46	158.9
79.4	191.5	19.08	150.9
49.6	181.5	10.24	142.3

Water + Phenylacetic acid ($C_8H_8O_2$)

Sidgwick and Ewbank, 1921

%	f.t.	%	sat.t.
		67.94	94.8
100	76.7	39.69	106.8
80.96	48.5	20.00	108.0
		5.65	84.7

triple point = 45.5° C.S.T. = 108.0°

Water + β -Phenylpropionic acid ($C_9H_{10}O_2$)

Sidgwick and Ewbank, 1921

%	f.t.	%	sat.t.
100	48.6	80.30	101.5
94.92	38.5	60.16	143.5
		39.31	150.0
		19.31	149.2
		5.00	119.9

triple point 34.0° L_1 + L_2 + C

C.S.T. : 150.0

Water + p-Methoxybenzoic acid ($C_8H_8O_3$)

Flaschner and Rankin, 1909-10

%	f.t.	%	f.t.	sat.t.
100	184.4	50.0	145.6	137.0
89.8	160.0	40.0	145.4	138.2
75.0	151.0	30.0	145.0	137.6
59.4	146.0	19.7	144.4	136.0
		9.0	140.0	-

Water + Salicylic acid ($C_7H_6O_3$)

Alexejew, 1882 and 1886

%	sat.t.	%	f.t.	
		0.16	12.5	
4.57	63	1.27	66	
5.90	73	2.44	81	
8.66	83.5	8.67	100	
10.80	85.5			
13.78	87	1.05	8	(second method)
14.07	87	2.07	41	
21.20	90.5	2.96	50	
21.70	90.5	5.9	92	
38.60	90.5	14.07	100.2	
42.90	90.5	21.20	100.5	
48.80	88.2	42.90	102	
52.00	88.0	73.01	109	
60.00	79.0	91.89	130	
61.20	76.0			
69.10	58.0			

Flaschner and Rankin, 1909-10

%	f.t.	sat.t.	%	f.t.	sat.t.
100	156.5	-	30.1	105.2	86.9
81.3	117.8	-	22.7	104.9	87.2
65.4	108.0	65.5	13.0	103.7	84.2
48.9	105.8	84.4	4.6	95.0	61.2
39.5	105.5	86.2			

Sidgwick and Ewbank, 1921

%	f.t.	sat.t.	%	f.t.	sat.t.
100	159.0	-	16.82	105.6	87.2
89.75	131.8	-	8.02	101.4	77.3
80.00	119.5	-	5.27	97.9	-
65.40	109.5	67.0	2.026	80.0	-
48.18	107.2	86.4	0.717	56.0	-
34.02	106.7	89.1	0.557	50.0	-

C.S.T. : 89.5

Bailey, 1925

%	f.t.	sat.t.	% L_1	% L_2
0.131	10.0	60.0	4.4	69.6
.184	20.0	70.0	6.5	64.6
.264	30.0	80.0	9.8	55.9
.395	40.0	85.0	15.0	46.0
.592	50.0	87.0	30.0	30.0
.864	60.0			
100	160.4			

E : 0.103% -0.07° C.S.T.

Water + m-Oxybenzoic acid ($C_7H_6O_3$)

Flaschner and Rankin, 1909-10

%	f.t. I	f.t. II	%	f.t. I	f.t. II
100	199.8	189	49.0	108.8	75.5
90.8	175.6	156	39.8	103.2	73.0
77.9	143.4	127	30.0	98.0	64.0
70.0	131.4	110.4	20.0	90.8	54.0
60.0	119.2	94.0	9.9	78.2	40.6

Sidgwick and Ewbank, 1921

%	f.t.	%	f.t.
100	201.3	25.22	93.3
70.80	134.0	14.70	84.6
49.85	109.8	9.85	79.6
33.85	98.3	6.11	69.0

Water + p-Oxybenzoic acid ($C_7H_6O_3$)

Flaschner and Rankin, 1909-10

%	f.t. I	f.t. II	%	f.t. I	f.t. II
100	213.0	178	50.0	111.8	89
90.4	180.6	130	40.1	104.4	80
80.0	154.4	118	29.5	97.4	74
69.2	134.0	107	19.8	90.0	64
59.6	120.0	96	10.0	77.0	55

Sidgwick and Ewbank, 1921

%	f.t.	%	f.t.
100	213.0	9.28	75.7
85.20	167.0	6.07	68.2
71.30	137.5	5.22	65.1
51.95	114.0	4.75	63.0
46.60	109.5	4.20	60.2
29.47	97.0	3.20	56.0
19.66	89.6	2.08	50.9
11.85	80.1		

tr.t. (1+1) - anh. 62.0

Water + 1,2,3-Oxytoluic acid ($C_8H_8O_3$)

Sidgwick and Ewbank, 1921

%	f.t.	%	sat.t.	
100	167.0	69.52	120.3	L_1+L_2
90.07	147.5	59.73	143.0	"
80.50	134.5	50.51	151.3	"
79.68	134.1	29.81	153.3	"
69.52	129.8	10.18	149.3	"
2.20	119.1	5.07	131.8	"
0.364	86.7			

C.S.T. = 153.5 triple point = 129.2

Water + 1,2,4-Oxytoluic acid ($C_8H_8O_3$)

Sidgwick and Ewbank, 1921

%	f.t.	%	sat.t.	
100	177.8	54.40	139.4	L_1+L_2
89.68	147.8	41.46	144.6	"
79.68	138.3	19.89	144.6	"
67.68	132.6	9.75	138.4	"
5.53	129.4	5.53	125.3	"
0.412	80.7			

C.S.T. = 145.2 triple point = 131.0

Water + 1,2,5-Oxytoluic acid ($C_8H_8O_3$)

Sidgwick and Ewbank, 1921

%	f.t.	%	sat.t.	
100	152.5	69.29	117.7	L_1+L_2
89.71	126.4	67.91	120.2	"
79.66	112.0	59.85	131.5	"
77.05	109.5	55.16	135.6	"
3.16	107.0	38.85	142.0	"
0.92	85.0	24.55	142.5	"
0.73	80.7	10.21	138.5	"
		4.53	117.5	"
		3.16	106.8	"

C.S.T. = 142.8 triple point = 107.8

Water + 1,3,4-Oxytoluic acid ($C_8H_8O_3$)

Sidgwick and Ewbank, 1921

%	f.t.	%	f.t.
100	208.5	30.23	124.2
76.98	154.0	10.33	113.1
66.07	143.0	4.03	98.8
48.67	131.4		

Water + 1,4,3-Oxytoluic acid ($C_8H_8O_3$)

Sidgwick and Ewbank, 1921

%	f.t.	%	f.t.
100	172.4	6.52	105.8
84.12	146.8	5.77	103.4
65.52	132.4	5.01	99.5
47.57	124.1	3.70	96.6
30.87	118.8	2.77	92.6
9.61	109.0	1.83	84.4

tr.t. = 99.5

Water + Mandelic acid I ($C_8H_8O_3$) l and rac.

Angus and Owen, 1943

% l	f.t.	% rac	f.t.
8.2	24.5	8.1	0
9.8	27.5	10.5	10
12.5	31.5	11.8	15
17.2	37.0	13.9	20
23.1	41.5	18.0	25
28.5	44.0	27.3	30
35.7	46.5	45.0	35
42.5	48.5	52.2	37
48.6	50.5	62.0	40
53.0	52.5	65.8	42.5
56.3	54.5	71.2	45
60.8	57.0	73.3	47
66.0	60.5	78.9	50
74.3	68.0		

Water + Acetylsalicylic acid ($C_9H_8O_4$)

Flaschner and Rankin, 1909-10

%	f.t.	sat.t.	%	f.t.	sat.t.
100	131.0	-	40.3	92.8	89.0
89.5	109.4	-	30.0	92.6	89.0
80.0	99.0	-	20.0	92.4	87.4
68.8	94.6	66	10.0	90.4	70.0
60.0	93.6	80	4.8	82.4	25.0
50.0	93.0	87.4			

Water + m-Digallic acid ($C_{14}H_{10}O_9$)

Pickering, 1893

%	f.t.
4.92	-0.0781
9.24	-0.0844
13.79	-0.1463
10.95	-0.1221
13.64	-0.1110

Paterno and Salimci, 1913

%	f.t.	%	f.t.
5	-0.02	30	-0.12
10	.04	40	.14
20	.08	50	.16

Hager, 1876

%	d	%	d
	17.5°		
0	0.9987	11	1.0434
1	1.0027	12	.0475
2	.0067	13	.0516
3	.0107	14	.0558
4	.0151	15	.0600
5	.0188	16	.0642
6	.0229	17	.0684
7	.0270	18	.0726
8	.0311	19	.0768
9	.0352	20	.0810
10	.0393		

Rakshit, 1925

%	d
20°	
1	1.00187
5	.01635
10	.03332
30	.10269
50	.17232

Water + o-Chlorbenzoic acid ($C_7H_5O_2Cl$)

Flaschner and Rankin, 1909-10

%	f.t.	sat.t.	%	f.t.	sat.t.
100	139.5	-	48.7	104	126
87.7	113.0	-	34.9	104.4	126.2
76.1	104.8	-	19.3	104	125.9
62.9	104.6	115.2	5.5	100.8	97.0

Water + m-Chlorbenzoic acid ($C_7H_5ClO_2$)

Flaschner and Rankin, 1909-10

%	f.t.	sat.t.	%	f.t.	sat.t.
100	156.0	-	51.3	123.8	142.6
87.7	129.5	-	34.3	123.9	142.8
75.8	123.8	116	18.9	123.8	142.0
60.2	123.9	136	4.2	123.0	122.0

Water + p-Chlorbenzoic acid ($C_7H_5O_2Cl$)

Flaschner and Rankin, 1909-10

%	f.t.	%	f.t.
100	240	40.0	186.0
83.0	204	30.0	185.6
70.2	192.0	19.8	183.8
59.5	189.0	10.0	180.0
50.0	187.0	3.0	162.0

Water + p-Brombenzoic acid ($C_7H_5BrO_2$)

Flaschner and Rankin, 1909-10

%	f.t.	%	f.t.
100	254	40.0	197.4
87.6	218	30.0	196.4
70.0	204	20.0	195
60.0	199.6	10.0	189
49.5	198.2	3.0	169

Water + p-Iodbenzoic acid ($C_7H_5IO_2$)

Flaschner and Rankin, 1909-10

%	f.t.	%	f.t.
100	270	40	209.8
86.6	228	30	208.8
75.2	219	20	206.6
60.0	214	9.8	199.6
50.0	212	3.0	178

Water + o-Aminobenzoic acid ($C_7H_7NO_2$)

Flaschner and Rankin, 1909-10

%	f.t. I	f.t. II	sat.t.
100	144.6	115	-
95	128.4	94	-
87.2	116.2	83	-
80.0	112.0	75	-
69.7	107.8	72	-
67.0	-	-	73.0
59.4	105.6	-	75.8
49.4	105.0	-	78.0
38.0	104.4	-	78.0
30.6	103.4	-	78.0
18.5	101.4	-	74.6
9.9	95.8	-	62.4
4.8	83.6	-	-

Zuravlev, 1938

%	sat.t.	%	sat.t.
70.0	71.0	24.7	78.0
59.6	76.2	14.8	70.0
43.6	78.3	10.0	62.1
35.6	78.5		

Water + m-Aminobenzoic acid ($C_7H_7NO_2$)

Flaschner and Rankin, 1909-10

%	f.t.	%	f.t.
100	174.4	39.3	116.5
94.2	156.6	30.0	113.8
85.7	143.0	19.9	109.2
77.1	133.0	8.9	99.0
61.2	123.2	4.6	77.8
52.1	120.2		

Water + p-Aminobenzoic acid ($C_7H_7NO_2$)

Flaschner and Rankin, 1909-10

%	f.t.	%	f.t.
100.0	186.0	50.2	115.2
94.5	158.0	39.5	112.2
88.0	144.8	30.0	109.0
80.0	132.0	20.1	103.6
68.2	123.4	10.0	94.0
60.1	119.2	5.0	82.2

Water + o-Nitrobenzoic acid ($C_7H_5NO_4$)

Flaschner and Rankin, 1909-10

%	f.t.		sat.t.
	I	II	
100	148.0	130	-
94.3	121.4	108	-
87.0	105.0	87	-
78.6	90.6	68	-
69.4	83.0	61	-
59.6	79.8	57	-
49.5	79.0	-	51.6
39.4	78.4	-	52.0
29.8	78.0	-	52.0
20.0	77.4	-	51.6
10.0	75.2	-	46.2
5.0	69.0	-	-

Sidgwick and Ewbank, 1921

%	f.t.	%	f.t.
100	146.8	39.92	78.0
90.38	110.4	19.24	77.5
79.32	90.5	9.48	75.3
59.85	79.5	1.85	49.5

Water + m-Nitrobenzoic acid ($C_7H_5NO_4$)

Timmermans, 1909-10

C.S.T.	limits of pressure	dt/dp
107.3	5 - 125 Kg	+0.008

Sidgwick and Ewbank, 1921

%	f.t.	%	sat.t.
100	141.4	60.85	97.7
89.76	104.8	40.31	108.4
79.52	85.4	19.85	107.8
		9.90	99.3
		4.57	79.3

triple point = 76.8 C.S.T. = 109.0

Alexejew, 1886

%	sat.t.	%	sat.t.
60.45	99.0	6.9	90.5
55.78	103.0	4.06	76.0
40.18	107.5	3.69	73.5
21.30	103.5	3.05	66.0
11.38	101.0		

Flaschner and Rankin, 1909-10

%	f.t.	sat.t.	%	f.t.	sat.t.
100	140.4	-	49.4	77.4	106.3
94.3	111.2	-	40.0	77.3	107.2
90.0	102.6	-	29.9	77.4	107.5
80.0	86.0	-	19.7	77.6	106.0
74.4	80.2	55.0	10.0	77.2	98.5
66.9	77.8	87.4	6.0	77.2	77.6
57.4	77.6	101.0	2.0	63.2	-

Water + p-Nitrobenzoic acid ($C_7H_5NO_4$)

Flaschner and Rankin, 1909-10

%	f.t. I	f.t. II	%	f.t. I	f.t. II
100	237.0	235	39.7	162.6	150.6
87.0	198.0	188.5	30.0	160.4	147.0
78.4	182.5	172.5	19.6	157.4	145.6
70.5	174.4	162.6	10.0	151.4	139.0
60.0	167.4	156.0	5.0	143.0	128.0
49.6	164.2	153.0			

Sidgwick and Ewbank, 1921

%	f.t.	%	f.t.
100	242.4	18.50	158.8
79.22	184.8	9.17	153.0
59.21	168.6	0.88	177.0(?)
38.30	163.5		

Water + 1,3,5-Dinitrobenzoic acid ($C_7H_4N_2O_6$)

Timmermans, 1907

C.S.T.	limits of pressure	dt/dp
123.3	(0 - 110 Kg)	+0.006

Flaschner and Rankin, 1909-10

%	f.t.	sat.t.	%	f.t.	sat.t.
100	206	-	40	122	123.6
90.9	160	-	30	122	123.8
80.2	132	96	19.8	121.6	122.0
67.4	123.2	114.0	10	120.4	111.4
60.0	122.4	120.2	4.4	113	87.0
50.0	121.8	122.8			

Water + Methylsulfonic acid (CH_4O_3S)

Berthoud, 1929

mol%	f.t.	mol%	f.t.	
0.79	-1.8	36.9	-30.9	
5.75	-17.0	40.3	-15.3	
8.15	-27.5	45.5	+1.5	
11.1	-42.0	47.8	+9.8	(3+1)
13.5	-57.4	51.7	+11.0	
16.4	-75.0	52.9	+10.7	
18.2	-67.6	61.8	-3.2	
19.1	-64.0	76.3	-12.0	(1+1)
24.4	-53.5	77.5	-14.5	
25.8	-51.7	78.0	-15.0	
27.6	-52.0	78.6	-13.6	
31.0	-54.0	83.3	-8.5	
31.5	-54.5	89.2	+6.0	
32.1	-51.0	100.0	+20.0	

Water + Ethylsulfonic acid ($C_2H_6O_3S$)

Berthoud, 1929

mol%	f.t.	mol%	f.t.	
3.3	-6	52.0	+5.1	
7.4	-17	53.8	+4.4	(1+1)
9.2	-23.5	62.0	-1.4	
27.5	-70	64.0	-5.0	
29.4	-58	68.5	-11.0	
32.7	-35	75.4	-25.2	
37.7	-9.5	79.5	-35.6	
40.2	-2.5	80.3	-32.3	
45.5	+4.3	86.0	-25.0	
48.0	+5.1	90.4	-21.0	
50.5	+5.4	100.0	-17.0	

Water + Dodecylsulfonic acid ($C_{12}H_{26}O_3S$)

Vold, 1941

%	f.t.	%	f.t.	
100	74.0	88.9	24.0	
99.2	59.0	85.4	23.5	(1+1)
98.3	53.0	75.4	22.0	
97.9	51.0	73.9	20.5	
95.8	43.0	65.2	18.0	
94.8	44.5	65.0	19.5	
94.1	45.5	61.4	15.5	
93.9	45.5	59.9	15.5	
93.1	45.5	53.3	9.5	
92.6	45.5	52.2	8.5	
91.1	45.5	50.9	5.5	
91.2	43.5	47.6	4.0	
89.8	39.0	36.9	-0.5	
89.0	37.0			

Region of pseudo-isotropy

%	t_1	t_2	%	t_1	t_2
63.9	15.5	45	58.6	32	114
61.7	15.5	83	56.3	70	130.5
61.4	15.5	85	53.3	115	145
59.8	18.0	100			

t_1 = temperature at which pseudo-isotropy appears on heating

t_2 = temperature at which pseudo-isotropy appears on cooling

Water + Benzenesulfonic acid ($C_6H_6O_3S$)

Hantzsch and Dürigen, 1928

%	d	n_D
	20°	
71.059	1.27465	1.48520
70.820	.27440	.48462
69.793	.26970	.48220
66.036	.25380	.47331
60.307	.23124	.46055
9.7160	.0370	.34950
8.0816	.0306	.34666
5.5390	.0133	.34228
0	0.99537	.33350

Kohner and Gressmann, 1929

wt%	mol%	d	n_{He}
		25°	
21.3552	3.00	1.07426	1.37328
22.0450	3.12	.07686	.37467
25.6463	3.78	.09073	.38208
31.0928	4.89	.11201	.39352
36.7804	6.22	.13473	.40586
43.1791	7.97	.16082	.42015
53.3061	11.51	.20280	.44335
60.9420	15.09	.23531	.46158
63.4413	16.51	.24595	.46758
66.0730	18.16	.25646	.47361
71.5840	22.30	.27932	.48671
71.9933	22.65	.28105	.48771

Water + m-Benzenedisulfonic acid ($C_6H_6O_6S_2$)

Bonner, Holland and Smith, 1956

m	osmotic coeff.	m	osmotic coeff.
	25°		
0.1	0.891	0.8	1.088
.2	.905	0.9	.120
.3	.937	1.0	.151
.4	.968	.2	.222
.5	.997	.4	.293
.6	1.027	.6	.362
.7	.057	.8	.437

Water + 4,4'-Dibenzyldisulfonic acid ($C_{14}H_{12}O_6S_2$)

Bonner, Holland and Smith, 1956

m	osmotic coeff.	m	osmotic coeff.
	25°		
0.1	0.857	1.0	0.822
.2	.813	.2	.857
.3	.800	.4	.899
.4	.792	.6	.944
.5	.786	.8	.992
.6	.782	2.0	1.042
.7	.784	2.2	.098
.8	.796	2.4	.161
.9	.807		

Water + 2,5-Dimethylbenzenesulfonic acid ($C_8H_{10}O_3S$)

Bonner, Holland and Smith, 1956

m	osmotic coeff.	m	osmotic coeff.
	25°		
0.1	0.913	1.4	0.728
.2	.885	1.6	.721
.3	.864	1.8	.718
.4	.844	2.0	.713
.5	.826	2.5	.709
.6	.811	3.0	.711
.7	.795	3.5	.718
.8	.782	4.0	.734
.9	.771	4.5	.752
1.0	.758	5.0	.774
1.2	.740		

Water + Naphthalene-β-sulfonic acid ($C_{10}H_8O_3S$)

Gill and Thornton, 1953

%	f.t.		%	f.t.	
11.0	-1.23		67.3	57.6	(3+1)
16.68	-1.97		68.2	59.8	
24.36	-2.84		68.6	61.9	
29.04	-3.68		69.3	63.4	
31.02	-4.34		70.5	65.7	
32.62	-4.70		73.6	73.2	
33.78	-4.97	(8+1)	77.6	79.9	(1+1)
36.61	+0.07		78.1	80.1	
37.90	+3.2		79.9	82.5	
39.60	6.2		80.1	83.3	
45.50	16.0		81.8	92.0	
48.80	20.5		82.5	94.4	
50.20	24.0	(5+1)	84.1	101.4	
52.10	28.0		86.2	107.2	
52.70	29.3		87.7	114.5	
54.00	32.2		88.7	116.8	
55.00	34.5		92.6	123.0	
56.30	37.2		98.0	110.0	
57.10	38.1		98.1	108.4	
59.90	43.8		99.4	99.0	anh.
63.30	50.7		100.0	104.0	
65.6	55.2				

	%	t	p
Triple point (water)	0	0.008	4.58
E (water) - (8+1)	33.5	-5.02	2.35
E (1+1) - anh.	98.8	+97.0	10
tr.t. (8+1) - (5+1)	48.5	20.5	15.8
tr.t. (5+1) - (3+1)	67.4	57.8	96
tr.t. (3+1) - (1+1)	78.9	81.4	168
f.t. (1+1)	96.02	125.9	207
f.t. anh.	100	104	-

Water + Phenanthrene-sulfonic acid ($C_{14}H_{10}O_3S$)

Bolam and Hope, 1941

N	η (water=1)	N	η (water=1)
18°			
0.01021	1.006	0.08433	1.056
0.01575	1.010	0.23570	1.264
0.02341	1.015	0.34020	1.351
0.04939	1.031	0.74740	2.323

Water + 10-Bromphenanthrene-3 (or 6) -sulfonic acid ($C_{14}H_9O_3BrS$)

Sandqvist, 1916

mol%	clearing point	f.t.
26.35	184	-
18.10	172.5	165 - 169
15.70	159	140 - 146
14.68	145.7	-
13.70	134	132.5
13.17	125 - 128	130.0
13.10	128	121 - 129.5
12.47	123 - 123.5	119 - 124.8
11.37	-	-
10.15	114.45	96 - 101
9.49	116.5	80 - 87
8.56	115.6	88
7.81	113.5	48 - 88
6.68	105.9	-
4.50	90.5	-
2.83	57.5	-
2.32	48.2	-
1.703	39.0	-
0.987	22.88	-
0.964	21.2	-
0.775	16.12	-
0.609	9.52	-
0.479	2.98	-
0.381	0	-

mol %	d
18°	
0.987	1.0723
0.775	.0569
0.609	.0454
0.479	.0360
0.381	.0290

N	mol %	d	η (water=1)	κ
18°				
0.508	1.005	1.0733	-	-
0.500	0.987	.0709	-	-
0.340	0.652	.0475	4.827	539.5
0.299	0.570	.0405	2.986	480.8
0.250	0.472	.0348	1.958	407.8
0.204	0.381	.0290	1.5255	289.1
0.125	0.230	.0172	1.184	229.1
0.0838	0.1533	.0113	1.093	169.1
0.0625	0.1139	.0079	1.064	136.4
0.0419	0.0760	.0033	1.032	104.2
0.0313	0.0564	.0013	1.022	87.2
0.0209	0.0380	.0006	1.007	65.2
0.0156	-	0.9995	-	49.8
0.0078	-	.9987	-	25.5
0.0000	-	-	0.999	0

Water + Quinic acid ($C_7H_{12}O_6$)

Kanonnikoff, 1885

%	t	d	n Hα	n D	n Hβ
17.95	19.2	1.06986	1.359310	1.361310	1.365840

Thomsen, 1887

%	d	$(\alpha)_D$
	20°	
9.93	1.0365	-43.64
19.74	.0780	-44.03
29.50	.2220	-44.09

Water + Pyrrolidon-5-carboxylic acid 1 ($C_5H_7NO_3$)

Froentjes, 1943 (fig.)

w.l. (in Å)	rotation (in degrees) 1%	2%	10%	40%
6800	-10.5	-10.0	-9.0	-8.0
6500	-11.0	-10.5	-10.0	-9.0
6000	-12.5	-11.5	-10.0	-9.0
5500	-13.5	-12.5	-10.5	-9.5
5000	-14.0	-10.5	-8.5	-6.0

Water + Methylboric acid (CH_5O_2B)

Burg, 1940

Dissociation in the gaseous state

U. WATER + INORGANIC AND NON METALLIC SUBSTANCES

LXVI. WATER + ELEMENTS AND HYDRIDES .

Water + Deuterium (D_2)

Silverman and Bradshaw, 1954

Density is additive .

Water + Chlorine (Cl_2)

Isambert, 1878

t	p dissoc.	t	p dissoc.
	(x+1)		
0	230	8.8	722
3.3	375	9.1	776
3.6	400	9.5	793
5	481	10.1	832
5.7	530	11	950
5.9	545	11.5	1015
6.6	571	11.7	1032
7.2	595	12.9	1245
7.6	644	14.5	1400
8	671		

Le Chatelier, 1884

t	p dissoc.	t	p dissoc.
	(10+1)		
9	746	-2	230
8	700	-3	210
3	420	-4	205
1	340	-5	146
0	320	-6	153
-1	290		

t	p	t	p
	(10+1)		
-1	290	- 7	230
-3.5	262	-14	175

Roozeboom, 1884

t	p dissoc.	t	p dissoc.
	(8+1)		
0.0	249	9.0	701
2.0	320	10.0	797
4.0	398	12.0	992
6.0	496	14.0	1240
8.0	620	16.0	1522

Water + Quinic acid ($C_7H_{12}O_6$)

Kanonnikoff, 1885

%	t	d	n Hα	n D	n Hβ
17.95	19.2	1.06986	1.359310	1.361310	1.365840

Thomsen, 1887

%	d	$(\alpha)_D$
	20°	
9.93	1.0365	-43.64
19.74	.0780	-44.03
29.50	.2220	-44.09

Water + Pyrrolidon-5-carboxylic acid 1
($C_5H_7NO_3$)

Froentjes, 1943 (fig.)

w.l. (in Å)	rotation (in degrees) 1%	2%	10%	40%
6800	-10.5	-10.0	-9.0	-8.0
6500	-11.0	-10.5	-10.0	-9.0
6000	-12.5	-11.5	-10.0	-9.0
5500	-13.5	-12.5	-10.5	-9.5
5000	-14.0	-10.5	-8.5	-6.0

Water + Methylboric acid (CH_5O_2B)

Burg, 1940

Dissociation in the gaseous state

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7.6	644	14.5	1400
8	671		

Le Chatelier, 1884

t	p dissoc.	t	p dissoc.
	(10+1)		
9	746	-2	230
8	700	-3	210
3	420	-4	205
1	340	-5	146
0	320	-6	153
-1	290		

t	p	t	p
	(10+1)		
-1	290	- 7	230
-3.5	262	-14	175

Roozeboom, 1884

t	p dissoc.	t	p dissoc.
	(8+1)		
0.0	249	9.0	701
2.0	320	10.0	797
4.0	398	12.0	992
6.0	496	14.0	1240
8.0	620	16.0	1522

%	t	p
0.505	0	249
0.611	3	355
0.709	6	496
0.900	9	701
1.10	12.5	105 (sic.)

%	t	%	t
	760 mm		
1.44	0	0.95	9
1.23	3	0.87	12
1.07	6		

Water + Bromine (Br_2)

Rhodes and Bascom, 1927

% L	% V	% L	% V
	at b.t.		
0.200	39.48	1.940	91.10
0.400	59.70	2.10	93.20
0.695	72.10	2.16	92.85
1.020	81.50	2.29	96.00
1.380	88.35	2.85	97.60
1.590	92.10	3.14	97.70

%	sat.t.	%	sat.t.
3.341	30.1	3.447	48.8
3.357	36.0	3.496	52.8
3.387	41.0	3.500	53.6 (b.t.)
3.414	44.8		

Giran, 1914

%	f.t.	m.t.
0	0	-
3	-0.3	-0.3 E
3.5	+7.5 L_1+L_2	-0.3
52.5	+7.5 "	-0.3 and -7.5 (8+1)
99.95	+7.5 "	-7.5
100	-7.5	-

Water + Nitrogen (N_2)

Vargaftig and Timroth, 1952 (fig.)

Vapour phase

mol %	$K.10^6$	mol %	$K.10^6$
	65°		
100	69.5	25	57
75	69.5	0	49.5
50	64.5		

K = thermal conductivity .

Water + Hydrofluoric acid (HF)

Brosheer, Lenfesty and Elmore, 1947

%	p_1	p_2	%	p_1	p_2
	25°			40°	
0.00	23.77	-	0.00	54.81	-
2.00	23.46	0.048	2.00	54.06	0.115
3.96	22.88	.087	4.21	52.53	.231
6.02	22.30	.131	6.10	52.04	.343
9.86	21.12	.256	10.38	49.04	.651
12.80	20.59	.380	12.33	47.42	.830
14.60	19.67	.452	14.00	46.60	1.070
16.80	18.87	.595	16.80	43.91	1.410
19.88	17.88	.772	21.00	40.07	2.110
24.90	15.40	1.280	24.12	37.27	2.950
29.00	13.52	1.900	28.90	32.00	4.560
	60°			75°	
0.00	149.8	-	0.00	286.9	-
2.23	146.6	0.366	1.96	282.4	0.659
4.12	144.6	0.670	4.20	275.9	1.390
6.15	140.9	1.030	6.20	269.8	2.140
9.06	135.7	1.710	9.00	260.1	3.420
12.00	127.8	2.420	11.90	252.3	4.940
15.00	123.5	3.390	15.20	237.9	7.200
17.90	116.6	4.650	17.45	228.9	9.120
20.90	109.2	6.140	20.90	209.7	12.450
23.90	102.2	8.180	24.00	199.6	16.520
26.50	95.2	10.570	26.70	183.1	21.460
29.50	86.2	13.350	29.70	167.6	27.550

Munter, Aepli and Kossatz, 1949

%	p	p_1	p_2
		0.1°	
70	40.8	0.0	40.8
	42.1	0.0	42.1
		20.0°	
70	116	0.1	116.0
	119	0.2	118.4
		30.0°	
10	28.1	27.9	0.24
	28.3	28.0	0.28
20	23.8	23.0	0.79
	24.0	23.2	0.79
30	19.9	17.6	2.34
	20.2	17.8	2.41
50	25.8	5.32	20.50
	26.7	5.28	21.40
70	193	0.32	193
	197	0.27	197
	189	0.28	189
		50.1°	
20	70.2	67.3	2.90
	70.6	68.0	2.64
30	58.9	51.2	7.70
	58.8	50.9	7.92
50	74.9	16.7	58.20
	76.4	18.4	58.00

		60.0°	
10	133	131	1.60
	135	133	1.65
		70.0°	
10	209	206	2.72
	212	209	2.60
20	190	182	7.63
	189	181	7.98
30	156	133	22.80
	152	130	22.20
50	186	47.9	138
	191	48.7	142

Fredenhagen and Wellmann, 1932

mol %	b.t.	mol %	b.t.
0.18	100.053	28.50	114.85
0.448	100.147	33.00	115.18
0.899	100.257	40.60	113.21
0.987	100.262	53.45	63.75
1.345	100.298	56.30	55.70
1.790	100.464	58.90	50.44
2.690	100.743	63.10	43.50
2.920	100.764	97.26	23.220
3.300	100.925	97.60	22.849
5.230	101.496	98.33	21.648
8.750	102.516	98.79	21.085
11.470	103.754	99.28	20.516
13.70	105.215	99.75	19.955
17.10	108.80	99.88	19.779
20.70	111.56	100.00	19.540
25.15	113.83		

Fredenhagen and Kerck, 1944

mol%	b.t.	mol%	b.t.
0	100.00	79.55	44.50
6.98	101.45	82.07	46.05
11.52	102.83	89.28	32.12
19.70	106.05	89.87	28.30
23.32	107.55	91.38	29.50
24.46	108.60	91.80	28.95
26.63	108.80	92.06	27.92
30.62	110.93	93.04	26.89
33.26	111.35	94.03	25.90
40.48	111.10	95.02	24.89
43.08	109.90	96.01	23.88
48.19	105.00	97.00	22.87
52.66	100.60	98.00	21.86
55.78	85.50	98.50	21.14
58.86	79.20	99.00	20.81
61.51	86.50	99.20	20.58
66.09	74.60	99.40	20.35
66.99	68.50	99.64	20.10
70.39	62.30	99.82	19.84
73.48	58.50	99.91	19.70
		100.00	19.54

Munter, Aepli and Kossatz, 1947

% L	% V	b.t.	% L	% V	b.t.
5.47	0.87	101.6	47.0	65.7	108.7
10.1	2.03	102.8	49.2	-	106.8
20.6	7.06	106.8	52.9	82.6	101.7
24.7	11.60	108.4	54.8	87.4	98.9
30.1	19.40	110.3	58.6	92.9	90.9
36.2	32.80	111.7	60.7	97.3	86.6
36.8	34.40	112.0	64.1	99.0	79.0
37.6	36.4	112.1	66.2	98.7	74.6
38.22	38.15	112.3	72.0	98.8	61.6
38.27	38.26	112.4	81.4	99.3	45.1
39.2	41.10	112.1	89.0	99.5	33.5
42.2	50.1	111.4			

38.26% b.t.= 112.0°/750 mm

Deussen, 1906

43.2 % b.t. = 111/750 mm Az d^{18} = 1.138

Lecat, 1949

%	b.t.
38.26	112.0 Az
100	19.4

Muehlberger, 1928

Az : 38.18 % (735 mm) b.t. = 110.8°/732 mm
d^{20} = 1.1038

Cady and Hildebrand, 1930

mol%	f.t.	mol%	f.t.
0.777	-1.06	69.8	-75.6
5.64	-6.46	71.0	-75.9
8.09	-10.0	74.3	-81.9
15.65	-23.0	76.2	-91.3
21.6	-41.6	77.6	-101.5 E
26.5	-60.2	78.6	-100.9
27.6	-70.3 E	79.6	-100.5
30.7	-62.9	81.7	-100.8
32.1	-59.6	86.4	-105.6
37.1	-49.1	88.3	-111.0 E
40.3	-43.7	89.4	-107.1
47.8	-36.3	91.3	-99.9
51.5	-36.0	93.9	-93.8
57.5	-41.7	96.1	-89.1
62.7	-51.0	97.4	-87.1
67.5	-68.3	98.2	-85.6
68.5	-75.3	100.0	-83.1

(1+1) (1+2) (1+4)

Hart, 1890

%	d	%	d
15°			
0	1.00	46.40	1.16
2.90	.01	49.30	.17
5.80	.02	52.20	.18
8.70	.03	55.10	.19
11.60	.04	58.00	.20
14.50	.05	60.90	.21
17.40	.06	63.80	.22
20.30	.07	66.70	.23
23.20	.08	69.60	.24
26.10	.09	72.50	.25
29.00	.10		
31.90	.11	14.8	1.05 (second series)
34.80	.12	29.3	.10
37.70	.13	43.8	.15
40.60	.14	58.3	.20
43.50	.15	72.8	.25

Winteler, 1902

%	d	%	d
20°			
0	0.998	26	1.090
1	1.001	27	.093
2	.005	28	.095
3	.009	29	.099
4	.012	30	.102
5	.016	31	.104
6	.021	32	.107
7	.025	33	.110
8	.028	34	.112
9	.033	35	.115
10	.036	36	.118
11	.039	37	.120
12	.043	38	.123
13	.047	39	.125
14	.050	40	.128
15	.053	41	.131
16	.057	42	.134
17	.060	43	.136
18	.064	44	.139
19	.067	45	.141
20	.070	46	.144
21	.074	47	.147
22	.077	48	.150
23	.080	49	.152
24	.084	50	.155
25	.087		

Zecchini, 1905

%	t	d
0	15	0.99940
19.0580	13	1.08725
35.6720	14	1.15222

Hill and Sirkar, 1910

%	d	%	d
0°			
0.484	1.005	71.73	1.262
1.504	.009	72.21	.260
2.48	.012	78.05	.260
4.80	.017	84.27	.235
7.75	.035	87.72	.212
15.85	.065	88.11	.210
24.47	.097	88.82	.207
28.48	.110	89.02	.202
29.83	.120	89.15	.200
34.23	.130	89.82	.190
38.50	.145	90.20	.185
41.00	.155	90.64	.175
41.15	.155	91.04	.165
41.92	.157	92.09	.152
47.52	.182	92.81	.135
48.49	.187	92.91	.130
50.97	.200	94.26	.095
55.09	.217	95.84	.065
55.39	.220	97.50	.035
57.66	.230	98.22	.022
61.66	.245	100.05	.0005
65.19	.255		
18°			
0.484	1.003	7.75	1.028
1.504	.005	15.85	.058
2.48	.009	24.47	.087
4.80	.017	29.83	.103

Domange, 1934

%	d	%	d
15°			
5.06	1.017	36.4	1.134
10.10	.035	39.9	.149
15.30	.054	42.4	.1595
20.25	.072	47.3	.179
26.40	.097	48.4	.183
29.80	.1085	53.8	.205

Zecchini, 1905

%	t	n_D
0	15	1.33349
19.0580	13	.32220
35.6720	14	.30353

Hill and Sirkar, 1910

%	κ	%	κ	%	κ
		0°		18°	
0.484	55.1	72.21	6797.1	0.0037	2.5
1.504	159.2	78.05	6739.2	.0075	3.8
2.48	257.1	84.27	6325.9	.0151	5.0
4.80	483.6	87.72	5749.0	.0302	8.0
7.75	793.6	88.11	5601.8	.0605	12.3
15.58	1601.3	88.82	5387.8	.1210	21.0
24.47	2515.7	89.02	5032.3	.2420	36.3
28.48	2894.3	89.15	4871.5	.4840	67.3
29.83	3060.1	89.82	4317.3	1.5040	198.1
34.23	3537.9	90.20	3324.7	2.48	314.6
38.50	3909.8	90.64	2819.1	4.80	592.6
41.00	4195.6	91.04	2579.8	7.75	962.8
41.15	4212.2	92.09	2396.7	15.85	1852.8
41.92	4223.1	92.81	2357.5	24.47	2831.5
47.52	4881.3	94.26	2107.7	29.83	3411.4
48.49	5001.9	95.84	1513.2		
50.97	5297.0	97.50	1069.3		
55.09	5791.8	98.22	887.2		
55.39	5820.3	100.05	269.9		
57.66	6053.4				
61.66	6299.7				
65.19	6501.8				
71.73	6782.5				

Thorvaldson and Bailey, 1946

%	m	U	%	m	U
		18-20°			
0.551	0.277	0.9956	10.02	5.565	0.9258
1.086	0.549	.9919	14.96	8.791	.8917
1.459	0.740	.9882	19.97	12.470	.8603
2.173	1.110	.9824	25.10	16.750	.8294
5.260	2.775	.9596	34.95	26.810	.7734
			48.13	46.370	.7185

Guntz, 1883

mol% initial	mol% final	Q dil.
	17°	
7.6	0.25	very small
13.3	"	+100
30.8	"	450
37.5	"	720
66.7	"	2050
100	"	4560

Water + Hydrochloric acid (HCl)

Heterogeneous equilibria.

Roscoe and Dittmar, 1860

%	p	%	p
	0°		
38.04	158	45.26	755
42.73	321	45.98	932
44.32	569	45.98	937
45.17	735	47.09	1263
45.08	737	47.01	1270

%	t	p	%	t	p
36.25	59.2	766	41.08	24.2	750
35.98	59.2	766	42.56	16.0	753
38.54	43.5	756	42.46	16.0	739
38.23	43.5	767	44.19	7.2	754
39.65	35.4	758	44.13	7.2	754
39.43	35.3	753	44.47	4.8	762
41.08	24.5	757	44.41	4.7	760
41.04	24.4	756			

Az (maximum)

%	p	%	p
18.1	2510	21.2	490
18.2	2460	21.7	380
18.5	1770	21.8	300
19.6	1100	22.2	210
20.0	960	22.9	100
20.21	768	22.9	65
20.23	765	23.3	64
20.6	630		

Dolezalek, 1898

N	p_2	N	p_2
	30°		
4.98	0.24	9.00	11.20
5.00	.245	9.21	12.74
5.50	.37	9.50	15.50
6.00	.52	10.00	31.50
6.43	.69	10.24	45.50
6.50	.71	10.50	66.00
7.00	.96	11.00	112.00
7.50	1.33	11.20	134.00
7.58	1.41	11.50	170.00
7.89	3.34	11.62	189.00
8.00	4.10	12.00	277.00
8.04	4.44	12.14	313.00
8.50	7.75	12.25	337.00

Allan, 1898

%	p	%	p	%	p
		18.4°			
36.40	138.1	34.85	66.6	31.75	21.9
35.90	109.8	33.90	46.0	30.20	11.8
35.10	75.8	32.85	32.7	28.10	5.5

Bates and Kirschman, 1919

m	p_2	m	p_2	m	p_2
		25°			
3.240	0.00780	6.018	0.1487	8.157	0.999
3.952	.01724	6.270	.1727	8.950	1.819
5.041	.0557	6.457	.206	9.990	4.260
5.364	.0791	7.148	.385		
		30°			
5.569	0.148	8.726	2.61	9.286	3.47
7.329	0.712				

Dobson and Mason, 1924

N	mol%	p_1	p_2
0	0	25° 23.7	
2.065	3.7	21.5	very low
3.335	6.1	19.6	0.0137
4.630	8.4	17.3	0.1030
6.520	12.0	13.4	0.570
8.00	14.7	10.5	3.00
10.52	19.6	6.3	38

Dunn and Rideal, 1924

M	p_2	M	p_2	M	p_2
		25°			
5.31	0.0821	1.72	0.00124	0.654	0.0000121
4.20	.0255	1.57	.000926	0.46	.00000571
3.37	.0105	1.45	.000829	0.361	.00000354
2.4	.00312	1.11	.000403	0.345	.00000303
2.12	.00235	0.895	.0000236		

Åkerlöf and Teare, 1937

M	p 0°	10°	20°	30°	40°	50°
3	4	8	15	27	46	79
4	4	7	14	25	43	74
5	3	7	13	23	40	69
6	3	6	12	21	37	64
7	3	5	11	19	34	59
8	2	5	10	18	32	56
9	2	5	9	18	32	57
10	2	5	10	18	35	62
11	2	6	12	23	43	78
12	4	9	18	35	64	116
13	7	15	30	55	98	179
14	12	24	51	91	160	277
15	25	49	90	158	271	460
15.88	38	74	133	232	398	677

Foulk and Hollingsworth, 1923

%	p	%	p
20.197	770	Az 20.269	740
20.221	760	20.293	730
20.245	750		

Bonner and Tittus, 1930

%	p	%	p
23.42	50	Az 20.507	640
21.883	250	20.155	800
21.437	350	19.734	1000
20.916	500	19.358	1220

Rayleigh, 1902

% L	% V	% L	% V
	b.t.		
6.45	0.26	20.3	18.9
7.50	0.45	23.3	32.4
8.95	0.76	25.2	44.2
11.00	1.53	27.4	56.6
14.50	4.46	29.0	68.8
18.0	12.80	32.8	88.3

Wrewsky, 1923

mol% (L)	mol% (V) 19.95°	55.2°
8	0.4	0.7
10	1.2	2.1
12	4.9	7.8
14	15.0	22.2
16	40.6	47.4

Wrewski and Faerman, 1929

% L	% V	% L	% V
		78°	
10.81	0.7	23.68	34.60
16.89	4.2	25.50	50.40
19.90	11.35	27.91	70.50
21.95	20.90	29.71	82.40
		21°	
31.05	88.7	35.57	97.8
33.00	94.35	36.95	99.0
34.85	97.0	37.61	-

Yannakis, 1923 and 1925

% L	% V	mol% L	mol% V	p	p_1	p_2
			50°			
6.65	-	3.4	0.05	83	83	0.04
10.25	0.2	5.3	.1	75.5	75.5	.07
13.4	0.3	7.1	.15	72	72	.11
17.0	1.15	9.2	1.1	63	63	.70
19.0	4.6	10.4	2.3	59	57.5	1.36
19.15	5.35	10.5	2.7	58	56.5	1.56
22.65	18.5	12.6	10.1	53	47.6	5.3
23.4	23.0	13.1	12.9	52	45.3	6.7
25.0	35.6	14.1	21.4	54	42.5	11.5
27.4	73.6	15.7	58.1	72	30.0	42
28.8	87.4	16.6	77.3	86	19.5	66.5
30.7	93.3	17.9	87.0	134.5	17.5	117
33.0	97.5	19.5	95.0	246	12.5	234
35.9	99.0	21.6	97.6	573	13.7	559

Wrewski, Sawaritzky and Scharloff, 1924

% L	% V	mol% L	mol% V	p	p_1	p_2
			19.95°			
0.00	0.00	0.00	0.00	17.5	-	17.5
5.05	.00	2.53	.00	16.0	0.0	16.0
5.05	.00	2.53	.00	16.1	.0	16.1
10.00	.00	5.20	.00	14.6	.0	14.6
10.00	.00	5.20	.00	14.4	.0	14.4
16.03	1.14	8.60	.57	12.3	.1	12.2
18.05	2.15	9.78	1.08	12.2	.1	12.1
18.05	1.03	11.16	0.96	11.6	.1	11.5
20.9	6.28	11.16	3.21	10.3	.3	10.0
20.9	6.23	13.56	11.45	10.2	.3	9.9
24.1	20.8	14.13	16.17	9.3	1.1	8.2
24.98	28.09	14.13	16.28	9.2	.5	7.7
24.98	28.24	17.47	68.45	9.1	.5	7.6
30.05	81.46	17.47	68.24	16.1	11.0	5.1
31.05	81.46	19.5	88.85	16.1	11.0	5.1
32.97	94.3	19.5	89.36	38.5	34.2	4.3
32.97	94.4	22.4	97.9	-	-	-
36.89	99.0	22.4	97.7	145.3	142.4	2.9
36.89	98.8	22.4	97.9	-	-	-
38.89	99.0			-	-	-

% L	% V	mol% L	mol% V	p	p_2
			55.2°		
5.03	0.00	2.53	0.00	114.7	0.0
10.00	.15	5.20	.07	104.7	.1
10.00	.15	5.20	.08	104.7	.1
16.00	1.7	8.60	.83	89.9	.8
16.00	1.7	8.60	.84	89.5	1.7
18.05	3.9	9.78	1.97	84.1	1.6
18.05	3.0	9.78	1.97	83.6	9.4
23.15	22.74	12.90	12.70	74.1	11.9
23.86	28.04	13.40	16.14	74.0	17.8
24.98	38.17	14.13	23.40	76.3	30.0
26.53	51.76	15.14	34.65	86.5	64.8
28.95	73.94	16.76	58.38	111.0	65.1
28.95	74.30	16.76	58.86	110.5	102.5
30.05	82.80	17.47	70.50	145.8	119.7
30.05	82.70	17.47	70.50	141.3	-
			75.9°		
9.03	0.47	5.11	0.23	264.3	0.6
14.73	2.16	7.06	1.08	236.0	2.5
14.73	2.31	7.06	1.15	-	-
19.84	11.29	10.88	5.90	-	-
21.53	19.05	11.94	10.40	-	-
21.53	18.66	11.94	10.22	205.3	20.90
22.40	23.41	12.50	13.13	203.6	26.70
22.40	23.45	12.50	13.15	202.2	26.60
22.65	27.53	12.77	15.75	202.0	31.90
24.60	41.51	13.05	25.97	209.9	54.50
24.60	41.40	13.05	25.91	-	-
25.75	53.03	14.63	36.81	226.6	81.20
25.75	53.22	14.63	35.99	-	-
28.54	70.10	16.48	61.18	299.2	183.0
28.58	75.80	16.48	60.70	-	-
30.67	86.84	17.94	76.92	427.7	329.0
30.67	86.10	17.94	75.34	-	-
32.80	91.40	19.42	84.08	522.2	439.1
33.35	92.90	19.82	86.63	-	-
33.35	92.50	19.82	85.84	561.3	481.8

Berl and Standinger, 1930

% L	% V	dew t	b.t.	p
1.450	0.0027	100.3	102.5	746.8
2.994	.058	101.1	102.2	746.4
4.145	.086	101.3	104.0	742.0
5.735	.174	101.9	103.2	741.4
6.957	.269	102.5	103.5	740.5
9.200	.500	103.2	104.5	742.4
10.31	.830	104.2	104.8	745.6
11.40	1.000	104.8	105.2	744.7
14.06	2.91	106.4	108.0	757.3
15.17	4.57	107.8	109.2	750.5
16.15	6.29	108.6	109.8	748.2
16.76	7.85	108.8	109.5	745.5
17.85	10.05	109.2	110.7	742.4
18.24	11.69	109.3	111.5	740.8
18.74	13.75	109.5	110.8	742.4
18.98	15.64	109.7	110.8	742.4
19.85	19.20	109.9	111.3	748.5
20.17	20.20	110.0	111.3	750.2
20.29	23.10	109.9	113.2	747.0
21.05	24.50	109.8	110.4	749.0
21.25	26.28	109.6	109.9	746.4
22.21	31.34	108.9	109.8	747.3
22.28	31.00	109.1	110.5	745.2
22.60	32.22	108.9	109.3	742.4
22.60	31.85	109.0	110.7	752.7
23.05	36.48	108.2	109.8	742.4
24.65	46.33	106.4	109.2	752.7
24.82	49.28	106.3	107.0	750.0
25.33	53.80	105.4	108.0	753.7
25.98	53.80	104.2	105.2	759.0
26.26	55.95	103.2	105.0	759.0
26.70	60.94	102.5	104.5	758.5
27.07	64.22	100.2	103.0	748.0
28.34	70.12	97.0	100.0	763.4
28.90	72.54	95.1	99.2	758.7
29.93	77.84	91.0	94.0	758.5
30.78	83.13	87.2	88.3	760.7
31.06	84.42	85.4	88.5	761.3
32.07	87.48	80.8	82.0	761.0
33.16	91.95	75.0	81.5	760.0
34.35	93.93	69.8	74.0	761.1
35.03	95.25	63.2	66.0	760.5
35.47	95.67	59.2	67.1	760.5
36.01	95.72	55.3	68.0	763.4
37.14	96.76	48.5	52.1	760.2
38.45	97.47	37.0	-	760.3
40.07	97.85	29.0	-	758.2

% L	% V	b.t.	p
60.09	100.10	-14	754.4
51.92	99.25	-36.5	749.2
49.84	99.20	-20	752.0
46.99	99.21	-12	748.5
45.10	98.27	-3	754.0
44.92	98.75	+1	747.7
44.06	98.75	+16.7	750.0
42.31	97.06	+17.2	754.4
41.50	97.92	+18	748.4

Rupert, 1909

%	b.t.	%	b.t.
61.65	50	65.18	10
61.76	45	65.48	5
62.27	40	65.85	0
62.90	35	66.44	-5
63.21	30	66.71	-10
64.19	20	67.29	-15
64.70	15	67.65	-20

Jablezynski and Kon, 1923

m	b.t.	m	b.t.
0.2892	100.278	1.5107	101.627
.5870	100.583	1.8453	102.046
.8926	100.908	2.1612	102.466
1.2269	101.287		

Bonne and Branting, 1926

% Az	p	b.t.	% Az	p	b.t.
20.560	620	103.3	20.471	650	104.5
20.532	630	103.7	20.438	660	104.9
20.504	640	104.1	20.351	700	104.9

Othmer, 1928

% L	% V	b.t.	% L	% V	b.t.
8.67	0.21	101.5	20.09	18.49	107.8
12.45	0.75	103.1	20.79	22.97	107.6
15.97	2.80	105.5	21.36	27.54	107.5
18.09	7.55	107.2	21.79	31.00	107.3

p = 751.3 mm

Deicke, 1863

t	absorpt. coeff.	%
0	525.202	45.148
4	494.722	44.361
8	480.288	43.828
12	471.336	43.277
14	462.375	42.829
18	451.222	42.344
18.25	450.660	42.283
23	435.034	41.536

Absorp. coeff. = vol. gaz in 1 vol. solv.

Almèn, 1898

%	$a.10^5$
15°	
0.16	81
9.16	85
20.97	89
30.55	91
39.11	93

a = Dv/G , where G is the absorbed volume of NH_3 gas

Bonner and Wallace, 1930

%	p	b.t.	%	p	b.t.
19.358	1220	122.98	20.638	600	102.209
19.734	1000	116.185	20.777	540	99.653
20.155	800	110.007	20.916	500	97.578
20.222	760	108.584	21.075	450	95.029
20.268	740	107.859	21.235	400	92.080
20.360	700	106.424	21.365	370	90.237
20.413	680	105.564	21.883	250	81.205
20.507	640	103.967	22.520	150	69.956
			23.420	50	48.724

Robinson and Stokes, 1949

m	osmotic coeff.	m	osmotic coeff.
25°			
0.1	0.943	1.6	1.126
.2	.945	1.8	.157
.3	.952	2.0	.188
.4	.963	2.5	.266
.5	.974	3.0	.348
.6	.986	3.5	.431
.7	.998	4.0	.517
.8	1.011	4.5	.598
.9	.025	5.0	.680
1.0	.039	5.5	.763
.2	.067	6.0	.845
.4	.096		

Shidei, 1927

Vapour phase

t	molar volume	p
	0.09403 gr HCl	29.12%
100	239.628	428.0
110	239.652	440.9
120	239.675	452.9
130	239.699	464.6
150	239.747	488.4
	0.16440 gr HCl	29.12%
110.	241.095	762.5
120	241.119	784.2
130	241.143	805.4
150	241.191	847.1
	0.11449 gr HCl	40.05%
100	240.520	485.3
110	240.544	498.9
120	240.568	512.6
130	240.592	526.2
150	240.640	553.4
	0.18407 gr HCl	40.40%
110	240.091	799.9
120	240.115	822.2
130	240.139	844.5
150	240.187	888.7
	0.15960 gr HCl	29.967%
110	240.832	737.8
120	240.856	758.4
130	240.880	778.9
150	240.928	819.5
	0.11324 gr HCl	29.882%
100	240.519	511.5
110	240.543	526.1
120	240.567	540.4
130	240.591	554.8
150	240.639	583.1
	0.09858 gr HCl	9.606%
100	239.993	500.4
110	240.017	514.8
120	240.041	528.9
130	240.065	542.8
150	240.113	570.6
	0.15160 gr HCl	20.34%
110	240.755	741.3
120	240.779	762.3
130	240.803	782.6
150	204.851	823.6
	0.10679 gr HCl	20.34%
100	239.989	510.6
110	240.014	525.5
120	240.038	539.9
130	240.062	554.2
150	240.110	582.6
	0.18750 gr HCl	44.236%
110	240.273	794.0
120	240.297	816.2
130	240.321	838.3
150	240.369	881.8
	0.07890 gr HCl	9.673%
100	241.368	400.0
110	241.392	410.2
120	241.416	421.5
130	241.440	432.4
150	241.489	454.3
	0.15144 gr HCl	9.673%
110	240.674	785.5
120	240.698	807.6
130	240.722	829.6
150	240.771	872.8
	0.15984 gr HCl	42.68%
110	240.957	683.0
120	240.981	701.8
130	241.005	720.9
150	241.053	758.7

Freezing curve .

Rüdorff, 1862

%	f.t.
1.74	- 1.9
3.37	- 4.0
4.06	- 4.75
5.04	- 6.50
5.56	- 7.05
6.77	- 9.60
8.42	-13.05

Guthrie, 1876

%	f.t.	%	f.t.
1	-0.7	7	-11.5
2	-2.0	8	-14.0
3	-3.6	9	-17.0
4	-5.3	10	-20.5
5	-7.0	12	-27.0
6	-9.0	14	-35.0
		16	-45.0

Pickering, 1893

%		f.t.	%	f.t.
		1st series		
48.81	(2+1)	-17.50	21.46	-58.5
47.53		-18.00	20.48	-52.6
46.39		-19.75	19.49	-46.1
45.21		-22.45	18.56	-41.75
43.93		-26.25	17.36	-36.65
42.49	(3+1)	-25.65	16.18	-32.20
41.41		-24.85	14.97	-27.5
40.38		-24.85	13.75	-23.55
39.17		-25.40	12.46	-19.10
37.97		-26.95	11.24	-16.75
36.68		-29.30	10.04	-13.75
35.33		-32.45	8.95	-11.55
33.74		-37.05	7.90	- 9.45
31.99		-42.00	6.89	- 8.0
31.87		-44.25	5.91	- 6.3
31.24		-46.20	4.82	- 4.7
28.19		-63.50	3.32	- 3.0
23.89		-79.50	2.07	- 1.6
22.81		-66.50	1.20	- 1.0
		2nd series		
22.84		-77.25	14.17	-28.45
22.39		-73.55	13.29	-25.25
21.87		-69.25	12.32	-19.40
21.32		-67.05	11.27	-15.95
20.69		-62.25	10.29	-13.80
20.04		-57.95	9.37	-11.45
19.41		-55.75	8.41	-13.80
18.83		-50.75	7.43	- 9.75
18.16		-46.85	6.19	- 7.60
17.45		-43.45	5.23	- 5.95
16.72		-40.05	3.81	- 4.00
15.89		-35.60	2.37	- 2.25
15.04		-32.15		

Roloff, 1895

%	f.t.	%	f.t.
0	0	10.01	-14.97
1.40	-1.431	10.81	-17.14
1.66	-1.706	11.30	-18.50
2.66	-2.910	11.98	-20.25
3.54	-3.960	12.69	-22.34
4.43	-5.184	12.90	-23.05
5.39	-6.57	13.21	-23.98
5.99	-7.64	13.31	-24.31
7.16	-9.55	13.98	-26.62
7.44	-10.11	14.14	-27.34
8.76	-12.68	14.52	-28.84
9.50	-14.10		

Jones and Getman, 1902, 1903 and 1904

M	f.t.
1.0	-4.122
1.5	-6.630
2.0	-9.939
2.5	-13.485
3.0	-18.096

Jones, 1904; Jones and Bassett, 1905

M	f.t.	M	f.t.
0.05	-0.174	0.8	-3.070
.10	-0.355	0.9	-3.540
.20	-0.712	1.0	-4.100
.30	-1.080	2.0	-9.937
.40	-1.442	3.0	-18.100
.50	-1.832	4.0	-30.5
.60	-2.250	5.0	-44.0
.70	-2.634	6.0	-61.0

Johnston, 1906

%	f.t.	%	f.t.
3.59	-4.118	22.36	-74.0
10.73	-18.06	24.06	-70.5
20.00	-39.90	31.00	-62.5

Baume and Tykociner, 1914

mol %	f.t.	mol %	f.t.
25.6	-25.0	40.1	-22.9
28.2	-26.1	47.6	-15.8
33.4	-17.6		

Kogan and Nikolaev, 1937 (fig.)

%	f.t.	%	f.t.
0	0	43	-25 E
10	-13	50	-18 (2+1)
20	-50	58	-21 E
25.21	-70.5 E	65	-17 (1+1)
30	-52	98	-18 L_1+L_2+(1+1)
40	-23 (3+1)		

Vuillard, 1955 (fig.)

%	f.t.	E
0	0	-
2	-2	-74.7
6	-7	"
10	-16	"
16	-36	"
20	-59	"
23	-74.7	"
25	-70.0 (6+1)	"
25	-70.0	-73.0
26.6	-73.0	"
30	-51	"
33	-39	"
36	-29	"

Properties of phases

Density

Ure, 1818

%	d	%	d
	15.5°		
0	0.998	21	1.103
1	1.004	22	.108
2	.009	23	.113
3	.014	24	.118
4	.019	25	.123
5	.024	26	.127
6	.029	27	.132
7	.033	28	.137
8	.038	29	.142
9	.043	30	.146
10	.047	31	.152
11	.052	32	.156
12	.058	33	.162
13	.063	34	.168
14	.068	35	.173
15	.073	36	.178
16	.078	37	.182
17	.083	38	.187
18	.088	39	.192
19	.093	40	.196
20	.097	41	.202

Kremers, 1859

%	d	%	d
	19.5°		
0	0.998	17	1.083
1	1.003	18	.088
2	.008	19	.093
3	.013	20	.098
4	.018	21	.103
5	.023	22	.109
6	.028	23	.114
7	.032	24	.119
8	.037	25	.124
9	.042	26	.129
10	.046	27	.134
11	.051	28	.139
12	.057	29	.144
13	.063	30	.149
14	.068	31	.155
15	.073	32	.161
16	.078	33	.167
		34	.177

t	d				
0	1.0429	1.0752	1.1077	1.1415	1.1171
19.5	1.0383	1.0686	1.0991	1.1311	1.1588
40	1.0309	1.0604	1.0882	1.1200	1.1466
60	1.0220	1.0511	1.0774	1.1093	1.1348
80	1.0116	1.0407	1.0695	1.0982	-
100	0.9998	1.0295	1.0579	1.0862	-

Marignac, 1871

t	d 13.8mol%	7.40mol%	3.85mol%	2mol%
0	1.13040	1.07367	1.03946	1.02065
6.99	.12687	.07151	.03823	.02002
13.74	.12346	.06924	.03668	.01892
16.68	.12198	.06820	.03592	.01831
21.41	.11961	.06648	.03457	.01720
26.43	.11707	.06456	.03299	.01579
29.64	.11544	.06331	.03192	.01481
33.36	.11355	.06176	.03059	.01356

t	d	t	d
1mol%		0.5mol%	
0	1.01056	0	1.00530
3.13	.01051	5.18	.00530
4.55	.01046	8.85	.00507
6.50	.01030	12.12	.00469
10.94	.00981	15.90	.00412
17.18	.00874	20.46	.00322
23.00	.00740	24.77	.00219
28.92	.00575	29.05	.00100
30.88	.00511	32.08	.00006

Kolb, 1872

%	d 0°	d 15°	%	d 0°	d 15°
2.22	1.0116	1.0103	29.72	1.1569	1.1504
3.80	.0202	.0189	31.50	.1666	.1588
6.26	.0335	.0310	34.24	.1806	.1730
11.02	.0581	.0557	36.63	.1931	.1844
15.20	.0802	.0751	38.67	.2026	.1938
18.67	.0988	.0942	40.51	.2110	.2021
20.91	1.1101	.1048	41.72	.2165	.2074
23.72	.1258	.1196	43.09	.2216	.2124
25.96	.1370	.1308	satd.		

Berthelot, 1873

mol%	t	d	mol%	t	d
1.95	13	1.020	20.04	17	1.171
2.04	13	.0205	21.92	17	.183
4.28	14.5	.042	22.47	17	.190
6.29	14	.063	23.80	13	.196
8.66	13.5	.082	25.45	13	.203
12.99	17	.116	26.70	13	.215
16.47	17	.144			

Hager, 1876

%	d	%	d
16°			
0	0.9990	25	1.1222
5	1.0234	30	.1476
10	.0477	35	.1527
15	.0722	40	.1957
20	.0971		

Kohlrausch, 1876

%	d	%	d
15°			
0	0.9991	29.48	1.1497
4.74	1.0229	29.54	.1500
9.81	.0481	39.03	.1964
19.50	.0975		

Grotrian, 1877

%	t	d	t	d	t	d
3.99	8.20	1.0202	20.90	1.0176	27.66	1.0156
8.79	9.14	.0434	20.39	.0410	27.78	.0385
17.95	10.12	.0904	20.10	.0862	29.76	.0819
29.95	10.52	.1527	19.42	.1478	32.05	.1403

Fink, 1885

%	d
18°	
0.98	1.0040
5.02	.0241
10.34	.0506
18.16	.0904
25.34	.1279

Perkin, 1889

%	d 4°	10°	15°	25°
0	-	0.9997	0.9991	0.9971
15.63	-	-	1.0762	1.0713
25.60	-	-	.1278	.1227
30.86	-	-	.1572	.1514
36.50	1.1939	-	.1856	.1792
41.70	1.2154	1.2110	.2071	-

Le Blanc, 1889

%	d
20°	
0	0.99823
7.45	1.03465
24.36	1.12837

Lunge and Marchlewski, 1891

%	d	$\tau \cdot 10^5$
15°		
0	0.9991	-
1.52	1.0069	15
2.93	.0140	17
5.18	.0251	20
7.84	.0384	24
9.99	.0491	27
12.38	.0609	32
15.84	.0784	33
17.31	.0860	35
18.36	.0914	37
20.29	.1014	42
22.89	.1150	44
25.18	.1271	46
27.75	.1405	53
29.35	.1490	54
31.28	.1589	56
33.39	.1698	57
35.36	.1798	57
37.23	.1901	58
39.15	.2002	59

Pickering, 1893

%	d	%	d
15°			
0	0.99913	37.596	1.18583
6.382	1.03054	39.831	.19598
14.788	1.07158	41.212	.20099
19.688	1.09578	41.901	.20325
25.260	1.12381	43.136	.20970
34.464	1.17035	44.345	.21373

Schuncke, 1894

t	d 31.61%	26.25%	20.20%	15.47%
-6	1.1707	1.1399	1.1099	1.0842
-5	.1700	.1394	.1094	.0839
-4	.1694	.1389	.1090	.0837
-3	.1687	.1384	.1086	.0834
-2	.1681	.1379	.1082	.0831
-1	.1674	.1374	.1078	.0828
0	.1668	.1369	.1074	.0825
+1	.1662	.1364	.1070	.0822
2	.1656	.1359	.1066	.0819
3	.1650	.1355	.1063	.0816
4	.1644	.1350	.1059	.0813
5	.1638	.1345	.1055	.0809
6	.1632	.1340	.1051	.0806
7	.1626	.1335	.1047	.0803
8	.1621	.1330	.1043	.0799
9	.1615	.1325	.1040	.0796
10	.1610	.1320	.1036	.0793
11	.1604	.1316	.1032	.0789
12	.1598	.1311	.1028	.0786
13	.1593	.1306	.1024	.0783
14	.1587	.1301	.1020	.0780
15	.1581	.1296	.1016	.0776
16	.1576	.1291	.1012	.0773
17	.1570	.1287	.1009	.0769
18	.1565	.1282	.1005	.0766
19	.1560	.1277	.1001	.0762
20	.1553	.1272	.0997	.0759
21	.1548	.1269	.0993	.0756
22	.1541	.1264	.0990	.0752
23	.1536	.1259	.0986	.0749
24	.1530	.1254	.0982	.0745
25	.1524	.1250	.0978	.0742
26	.1520	.1245	.0974	.0739

t	12.58%	6.94%	3.65%
-6	1.0683	1.0368	1.0187
-5	.0680	.0367	-
-4	.0678	.0366	-
-3	.0676	.0366	-
-2	.0674	.0365	-
-1	.0672	.0365	-
0	.0670	.0364	1.0190
+1	.0667	.0362	-
2	.0665	.0361	-
3	.0662	.0359	-
4	.0660	.0358	-
5	.0657	.0356	-
6	.0654	.0355	1.0187
7	.0651	.0353	-
8	.0649	.0352	-
9	.0646	.0350	-
10	.0643	.0349	-
11	.0640	.0347	-
12	.0638	.0345	-
13	.0635	.0344	-
14	.0632	.0342	-
15	.0629	.0340	1.0177
16	.0626	.0338	-
17	.0622	.0335	-
18	.0619	.0333	-
19	.0616	.0331	-
20	.0613	.0328	-
21	.0610	.0326	-
22	.0606	.0324	-
23	.0603	.0321	-
24	.0600	.0319	-
25	.0597	.0317	-
26	.0594	.0315	1.0081

Schönrock, 1895

%	t	d
11.453	20.4	1.0541
25.055	18.4	1.1242

Le Blanc and Rohland, 1896

%	d
20°	
0	0.9982
7.74	1.0361
15.00	.0718
28.23	.1393

Sentis, 1897

mol%	t	d	mol%	t	d
1	26.8	1.0057	5	13.15	1.0405
1	17.6	.0079	10	24.9	.0677
2	17.4	.0164	10	24.0	.0673
3	17.9	.0242	10	13.1	.0710

Eckelt, 1898

%	d	%	d
room temperature			
2.32	1.0069	49.42	1.1883
4.04	.0139	51.57	.1981
5.76	.0211	53.72	.2080
7.48	.0283	55.87	.2182
9.20	.0356	58.02	.2285
10.92	.0431	60.17	.2390
12.48	.0506	62.32	.2497
14.04	.0583	64.47	.2605
15.59	.0661	66.61	.2716
17.15	.0740	68.76	.2828
18.86	.0820	70.91	.2943
21.64	.0901	73.06	.3059
24.42	.0983	75.21	.3177
27.20	.1067	77.36	.3298
29.98	.1152	79.51	.3421
32.78	.1239	81.66	.3546
35.15	.1323	83.81	.3674
37.53	.1415	85.96	.3804
39.91	.1506	88.10	.3937
42.29	.1598	90.24	.4072
44.67	.1691	92.39	.4211
47.04	.1786	94.54	.4350
		96.69	.4493

Barnes and Scott, 1898

%	d	%	d
	19.5°		
0	0.9983	12.22	1.0587
1.356	1.0051	18.55	.0910
5.345	.0246	24.35	.1207
3.540	.0159	29.97	.1511
6.559	.0305	36.00	.1818
9.148	.0433		

Forchheimer, 1900

%	d	%	d
	20°		
0	0.9982	7.17	1.0334
1.90	1.0076	12.94	.0618
4.05	.0187	19.30	.0936
5.65	.0261	27.10	.1336

Ferguson, 1905

%	d	%	d
	15.56°		
0	0.99904	27.45	1.13818
5.73	1.02716	30.05	.15164
10.73	.05255	32.71	.16535
19.28	.07574	39.58	.19795
23.74	.11325	41.14	.20470
24.36	.12122	42.57	.21004
		42.65	.21024

Zecchini, 1905

%	t	d
0	20	0.99823
3.8331	25.5	1.01578
5.2764	23.8	.02313
5.2733	23.1	.02320
5.7234	24.4	.02502
11.2915	25.0	.05164
11.4358	16.6	.05482
12.3551	25.4	.05698
12.5590	25.9	.05664
12.5952	25.9	.05799
17.0659	16.0	.08345
23.0996	25.4	.11040
26.6400	17.7	.13213
34.4100	20.7	.16623
36.2613	22.2	.18011

Chéneveau, 1907

%	d	%	d
	15°		
0	0.9991	22.87	1.1150
4.13	1.0200	26.17	.1322
8.12	.0398	29.39	.1490
11.93	.0587	32.54	.1652
15.72	.0777	33.58	.1810
19.28	.0962		

Green, 1908

M	d	M	d
	24.9°		
0	0.99714	5.981	1.0928
0.9955	1.0146	6.810	.1055
2.018	.0312	7.765	.1183
3.032	.0476	8.918	.1356
3.467	.0545	10.47	.1570
4.587	.0716	11.97	.1798
5.905	.0917		

Guerdjikova, 1918

%	d
25°	
0	0.9971
14.319	1.0661
20.697	.0977
25.568	.1243

Tucker, 1915

mol%	d	mol%	d
15°		17°	
4.74	1.0448	3.91	1.0372
7.20	.0665	5.10	.0454
8.39	.0770	7.15	.0664
9.77	.0900	9.87	.0908
10.67	.0975	12.12	.1100
12.73	.1138	15.11	.1336
14.01	.1252	16.83	.1472
15.61	.1375	18.57	.1588
17.25	.1505		
19.03	.1635		

Carstens, 1924

%	d	%	d
	18°		
0	0.9986	20.25	1.0997
2.51	1.0111	28.71	.1438
5.38	.0252	30.55	.1550
8.86	.0427	36.85	.1851
15.19	.0762		

Manchot, Jahrstorfer and Zepter, 1924

c	d
25°	
3.9387	1.0168
7.7318	.0335
16.703	.0741
23.706	.1050

Bonner and Branting, 1926

%	d	%	d
	25°		
20.351	1.0975	20.504	1.0983
20.438	.0981	20.532	.0984
20.471	.0982	20.560	.0986

Howell, 1927

%	d	%	d
	20°		
0	0.9982	23.50	1.1142
3.757	1.0162	23.91	.1176
7.385	.0346	25.43	.1255
10.89	.0518	26.94	.1335
14.29	.0689	29.90	.1487
17.59	.0852	32.80	.1637
20.80	.1016	35.53	.1768
21.43	.1048	39.14	.1935
22.37	.1092	40.61	.1998

Hüttig and Kükenthal, 1928

%	d	%	d
	20°		
4.56195	1.02066	28.5506	1.14040
8.9320	.04204	32.0830	.15845
13.2340	.06314	35.3793	.17471
20.8450	.10097	38.7576	.19018
24.8575	.12140		

Schreiner, 1928

M	d	M	d
	18°		
0.501	1.00771	5.005	1.08179
0.9994	.01641	6.004	.09724
2.000	.03344	6.962	.11227
2.997	.04994	8.080	.12869
3.984	.06585	8.970	.14206
		10.014	.15744

Bonner and Tittus, 1930

%	d	%	d
	25°		
23.420	1.1118	20.507	1.0973
21.883	.1042	20.155	.0955
21.437	.1019	19.734	.0933
20.916	.0993	19.358	.0915

Bonner and Wallace, 1930

%	d	%	d
	25°		
19.358	1.0915	20.638	1.0980
19.734	.0933	20.777	.0987
20.155	.0955	20.916	.0993
20.222	.0959	21.075	.1002
20.268	.0962	21.235	.1010
20.360	.0966	21.365	.1016
20.413	.0968	21.883	.1042
20.507	.0973	22.520	.1073
		23.420	.1118

Åkerlöf and Teare, 1938

%	d				
	0°	10°	20°	30°	40°
0	0.99982	0.99948	0.99800	0.99553	0.99219
2	1.01055	1.00968	1.00780	1.00522	1.00175
4	.02116	.01978	.01771	.01421	.01122
6	.03176	.02987	.02751	.02440	.02066
8	.04237	.03996	.03731	.03399	.03011
10	.05299	.05008	.04714	.04360	.03958
12	.06365	.06023	.05701	.05325	.04907
14	.07434	.07040	.06690	.06292	.05858
16	.08507	.08061	.07683	.07263	.06812
18	.09581	.09084	.08678	.08235	.07768
20	.10658	.10109	.09675	.09210	.08725
22	.11736	.11136	.10675	.10188	.09684
24	.12815	.12164	.11677	.11167	.10643
26	.13893	.13192	.12678	.12145	.11602
28	.14970	.14219	.13680	.13123	.12560
30	.16044	.15243	.14679	.14100	.13516
32	.17113	.16264	.15677	.15075	.14469
34	.18175	.17280	.16669	.16044	.15416
36	.19280	.18340	.17706	.17061	.16409
38	.20272	.19288	.18634	.17965	.17290

%	d 50°	d 60°	d 70°	d 80°
0	0.98809	0.98830	0.97789	0.97191
2	0.99761	0.99287	0.98758	0.98182
4	1.00702	1.00230	0.99712	0.99152
6	.01640	.01169	1.00659	1.00114
8	.02578	.02107	.01603	.01070
10	.03516	.03043	.02544	.01994
12	.04456	.03980	.03484	.02970
14	.05397	.04917	.04422	.03915
16	.06340	.05854	.05358	.04856
18	.07283	.06790	.06292	.05792
20	.08228	.07726	.07223	.06723
22	.09172	.08660	.08151	.07648
24	.10116	.09592	.09074	.08565
26	.11059	.10520	.09992	.09474
28	.11998	.11445	.10902	.10374
30	.13063	.12490	.11805	.11261
32	.13997	.13276	.12698	.12135
34	.14793	.14178	.13578	.12993
36	.15761	.15122	.14495	.13885
38	.16759	-	-	-

Guillaume, 1946

%	d 20°
5.42	1.0251
13.10	1.0634
34.00	1.1686

Deicke, 1863

%	t	$d_{sat.sol.}$	%	t	$d_{sat.sol}$
45.148	0	1.22556	42.829	14	1.20655
44.361	4	.22655	42.344	18	.20475
43.838	8	.21836	42.283	18.25	.20386
43.277	12	.21420	41.536	23	.19843

Roloff, 1895

%	t	$d_{sat.sol.}$	%	t	$d_{sat.sol.}$
0	0	1.010	10.01	-14.97	1.055
1.40	-1.431	.007	10.81	-17.14	.059
1.66	-1.706	.009	11.30	-18.50	.063
2.66	-2.910	.014	11.98	-20.25	.066
3.54	-3.960	.019	12.69	-22.34	.070
4.43	-5.184	.024	12.90	-23.05	.072
5.39	-6.57	.028	13.21	-23.98	.074
5.99	-7.64	.032	13.31	-24.31	.074
7.16	-9.55	.038	13.98	-26.62	.078
7.44	-10.11	.040	14.14	-27.34	.080
8.76	-12.68	.047	14.52	-28.84	.082
9.50	-14.10	.051			

Rupert, 1909

%	t	$d_{sat.sol.}$	%	t	$d_{sat.sol.}$
61.65	50	1.219	65.18	10	1.240
61.76	45	.212	65.48	5	.245
62.27	40	.218	65.85	0	.247
62.90	35	.227	66.44	-5	.255
63.21	30	.229	66.71	-10	.260
64.19	20	.228	67.29	-50	.269
64.70	15	.231	67.65	-20	.279

%	d -15°	d 0°	d +20°	d +35°
		in V		
46	0.011	0.011	0.012	0.014
50	.011	.013	.017	.020
54	.012	.018	.025	.040
58	.017	.027	.048	.083
62	.027	.042	.082	.146
66	.040	.065	-	-
		in L		
42	-	-	1.203	1.203
44^m	1.236	1.228	-	-
56^m	-	-	-	1.224
56.5^m	-	-	1.237	-
58.5^m	-	1.254	-	-
59^m	1.266	-	-	-
62.5^s	-	-	-	1.211
64^s	-	-	1.221	-
66^s	1.258	1.240	-	-

m - maximum of density s - sat sol

Tammann and Schwarzkopf, 1928

t	$Dv.10^2$ (%)	t	$Dv.10^2$ (%)
	7.5%		10.9%
-1	-0.88	-4	-6.39
-2	1.69	-6	8.29
-3	2.42	-8	10.19
-4	3.17	-12	13.94
-7	4.94	-15	16.45
-8	5.39	-17	17.90
-9	5.78	-20	19.72
-10	6.08	-21	19.98
-12	6.15	-22	20.42
-15	5.70	-24	20.97
-16	5.38		
-17	4.99		
-19	3.96		
	12.8%		14.6%
-5	-8.76	-5	-10.12
-10	14.59	-10	20.37
-14	18.90	-12	24.26
-15	20.46	-15	30.67
-16	21.43	-18	36.69
-17	22.42	-23	47.29
-18	23.82	-25	50.89
-20	26.03	-28	56.30
-22	28.19	-32	61.47
-24	30.08	-35	67.45
-27.5	32.61	-38	71.40

Schmidt, 1859

%	t	π
4.7	16.5	45.8
4.7	16	45.2
13.2	17.4	42.0
13.2	17	42.2
19.1	16	41.0
26.7	15.0	39.3
32.7	15.5	37.9
36.7	16.3	38.2
36.7	15.8	37.7

Carstens, 1924

%	π	%	π
	18°		
0	49.1	20.25	42.7
2.51	47.9	28.71	42.2
5.38	46.5	30.55	42.1
8.86	45.1	36.85	42.5
15.19	43.5		

Mikhailov and Shutilov, 1956 (fig.)

%	π			
	20°	40°	60°	80°
0	45.5	43	42.5	42.2
4.9	43	41.3	41.1	40.9
10	41.2	40	40	39.9
18	39.1	38.8	38.5	39
27.0	38	38.2	38.7	39.4

Viscosity and surface tension .

Grotrian, 1877

%	η		
	10°	20°	30°
3.99	1390	1059	858
8.79	1461	1168	948
17.95	1664	1333	1129
29.95	2172	1779	1509

Wagner, 1883

%	η(water at 0°=100)			
	15°	25°	35°	45°
8.14	70.97	57.94	48,31	40.10
16.125	79.98	66.54	56.37	48.09
23.045	91.84	76.82	65.92	56.37

Pagliani and Battelli, 1884

%	η	
	0°	11.15°
0	1775	1268
43.2	3506	2863
45.0	3834	-

Howell, 1927

%	η	%	η
	20°		
0	1005	23.50	1482
3.757	1065	23.91	1500
7.385	1125	25.43	1555
10.89	1187	26.94	1611
14.29	1251	29.90	1731
17.59	1323	32.80	1870
20.80	1408	35.53	2004
21.43	1430	39.14	2183
22.37	1452	40.61	2266

Volkmann, 1882

d	σ
20°	
0.9982	72.5
1.0242	72.4
.0625	72.1
.0887	71.7
.1190	70.9

Sentis, 1897

mol%	t	σ	mol%	t	σ
0	25.1	72.3	3	17.9	75.7
0	13.5	74.0	5	13.15	77.6
1	26.8	72.9	10	24.9	79.6
1	17.6	74.0	10	24.0	79.5
2	17.4	75.0	10	13.1	81.4

Whatmough, 1902

%	σ	%	σ
18°			
0	74.16	14	73.49
2	74.64	16	73.25
4	74.43	18	73.05
6	74.19	20	72.92
8	74.~~66~~ 06	22	72.70
10	73.83	25	72.33
12	73.67		

Howell, 1927

N (18°)	%	σ (20°)	N (18°)	%	σ (20°)
0	0	72.69	6.288	20.79	71.38
1.048	3.757	72.52	6.498	21.43	71.26
2.096	7.385	72.30	6.812	22.37	71.15
3.144	10.89	72.10	7.126	23.30	71.07
3.668	12.63	72.00	7.336	23.91	70.92
4.192	14.29	71.91	7.860	25.43	70.70
4.716	15.97	71.80	8.384	26.94	70.40
5.240	17.59	71.67	9.432	29.90	69.62
5.764	19.20	71.52	10.480	32.80	68.71

Zawidzki, 1900

% L	% surface (foam)
20.03	20.19

Optical and electrical properties

van der Willigen, 1869

34.21% 20.75° d=1.16623

spectrum lines	n	spectrum lines	n
34.21%	20.75°		
A	1.40455	F	1.41774
a	.40589	G	.42092
B	.40704	G	.42331
C	.40817	H	.42437
D	.41109	H	.42608
E	.41469	H	.42816
b	.41536		

Le Blanc, 1889

%	n_D
20°	
0	1.33325
7.45	.35040
24.36	.39059

Le Blanc and Rohland, 1896

%	n_D
20°	
0	1.3333
7.74	.3508
15.00	.3675
28.23	.3988

Zecchini, 1905

%	t	n_D	%	t	n_D
0	20	1.33298	12.5590	25.9	1.36098
3.8331	25.5	.34149	12.5952	25.9	.36165
5.2764	23.8	.34462	17.0659	16	.37261
5.2733	23.1	.34509	23.0996	25.4	.38596
5.7234	24.4	.34587	26.6400	17.7	.39522
11.2915	25	.35840	34.4100	20.7	.41109
11.4358	16.6	.35937	36.2613	22.2	.41782
12.3551	25.4	.36088			

Chéneveau, 1907

%	n_D	%	n_D
	15°		
0	1.3334	22.87	1.3872
4.13	.3429	26.17	.3954
8.12	.3521	29.39	.4031
11.93	.3610	32.54	.4103
15.72	.3703	35.58	.4171
19.28	.3789		

Guerdjikowa, 1918

%	n_D	%	n_D
	25°		
0	1.33255	20.697	1.3801
14.319	1.3653	25.568	1.3924

Elsey and Lynn, 1923

%	n_D 25°	n_D 30°	%	n_D 25°	n_D 30°
0.00	1.33251	1.33204	6.88	1.34816	1.34769
0.80	.33432	.33389	7.82	.35025	.34977
1.74	.33651	.33608	8.53	.35190	.35144
2.62	.33847	.33802	9.40	.35374	.35325
3.57	.34060	.34019	10.40	.35590	.35534
4.42	.34255	.34210	12.90	.36187	.36130
5.21	.34433	.34393	13.80	.36395	.36336
6.20	.34662	.34613			

Howell, 1927

%	n_C	n_D	n_F	$n_{G'}$
		20°		
0	1.33117	1.33299	1.33703	1.34017
3.757	.33938	.34173	.34599	.34944
7.385	.34786	.35007	.35464	.35824
10.89	.35594	.35815	.36305	.36684
14.29	.36357	.36603	.37111	.37521
17.59	.37135	.37387	.37922	,38339
20.80	.37863	.38127	.38686	.39121
21.43	.38027	.38304	.38850	.39302
22.37	.38230	.38507	.39059	.39517
23.50	.38442	.38713	.39281	.39745
23.91	.38592	.38867	.39449	.39903
25.43	.38962	.39238	.39830	.40305
26.94	.39294	.39572	.40169	.40646
29.90	.39945	.40218	.40851	.41350
32.80	.40654	.40950	.41600	.42111
35.53	.41224	.41542	.42209	.42743
39.14	.41907	.42232	.42913	.43454
40.61	.42203	.42522	.43222	.43784

Wagner, 1920

c	n_D	c	n_D
	17.5°		
0	1.33320	7.093	1.34910
0.157	.33358	.265	.34947
.316	.33397	.437	.34984
.477	.33435	.609	.35021
.638	.33474	.782	.35058
.801	.33513	.955	.35095
.966	.33551	8.128	.35132
1.133	.33590	.301	.35169
.300	.33628	.474	.35205
.467	.33667	.647	.35242
.634	.33705	.820	.35279
.803	.33743	.993	.35316
.972	.33781	9.166	.35352
2.141	.33820	.339	.35388
.310	.33858	.513	.35425
.479	.33896	.587	.35461
.649	.33934	.861	.35497
.819	.33972	10.035	.35533
.989	.34010	.209	.35569
3.159	.34048	.383	.35606
.329	.34086	.557	.35642
.499	.34124	.737	.35678
.669	.34162	.905	.35714
.839	.34199	11.079	.35750
4.009	.34237	.253	.35786
.179	.34275	.427	.35822
.521	.34313	.601	.35858
.692	.34350	.775	.35894
.863	.34388	.949	.35930
5.034	.34426	12.123	.35966
.205	.34433	.297	.36002
.376	.34500	.471	.36038
.547	.34575	.645	.36074
.718	.34612	.819	.36109
.889	.34650	.993	.36145
6.061	.34687	13.167	.36181
.233	.34724	.341	.36217
.405	.34761	.515	.36252
.577	.34798	.689	.36287
.749	.34836	.863	.36323
.921	.34873	14.037	.36359
		.211	.36394
		.385	.36429
		.559	.36464

Hüttig and Kükenthal, 1928

%	n_D	%	n_D
	20°		
4.56195	1.34354	28.5506	1.39877
8.9320	1.35359	35.3793	1.41374
20.8450	1.38072	38.7576	1.42033
24.8575	1.39013		

Schreiner, 1928

M	n C	n D	n F
		18°	
0	1.33124	1.33308	1.33724
0.501	.33541	.33730	.34163
0.9994	.33945	.34142	.34586
2.000	.34738	.34947	.35412
2.997	.35504	.35722	.36217
3.984	.36243	.36471	.36994
5.005	.36979	.37218	.37769
6.004	.37687	.37938	.38497
6.962	.38373	.38634	.39223
8.080	.39114	.39382	.39996
8.970	.39712	.39989	.40623
10.014	.40396	.40683	.41339

Washburn and Olsen, 1932

N	n_D	N	n_D	N	n_D
20.00°		25.00°		30.00°	
0.0000	1.33302	0.0000	1.33251	0.0000	1.33196
.2430	.33507	.1216	.33351	.1214	.33299
.4859	.33708	.2428	.33457	.1994	.33366
.8901	.34040	.3041	.33506	.2425	.33403
1.2562	.34336	.4853	.33659	.2497	.33406
1.5215	.34549	.8549	.33956	.4440	.33566
2.0262	.34950	.8890	.33988	.6898	.33769
2.5129	.35332	1.2545	.34495	.8877	.33932
3.0401	.35738	1.5194	.34893	1.2525	.34227
3.4458	.36050	2.0233	.35269	1.5670	.34435
4.0582	.36514	2.5089	.35675	2.0200	.34833
		3.0351	.35985	2.6375	.35310
		3.4349	.36441	3.0298	.35610
		4.0510	.34285	3.4337	.35918
				3.9858	.36328
				4.0435	.36334

Karetnikov, 1954 (fig.)

M	specific refraction
18°	
0	0.206
2	.208
5	.211
6.2	.2125
8	.213
10	.2135
15	.215

Perkin, 1889

%	t	$(\alpha)_{magn.}$
15.63	16	1.7117
25.60	20.4	.6583
30.86	21.5	.5562
36.50	11.0	.4657
41.70	17.3	.2766

Schönrock, 1895

%	t	$(\alpha)_{magn.}$
11.453	20.4	2.3577
25.055	18.3	2.1748

Guerdjikowa, 1918

%	$(\alpha)_{magn.}$
25°	
0	5.068
14.319	6.101
20.697	6.660
25.568	7.117

In radians, gauss, centim.

Guillaume, 1946

%	n 5780 Å	$*(\alpha)_{magn.}10^6$
	20°	
0	-	3.974
5.42	1.3469	4.275
13.10	1.3638	5.625
34.00	1.4125	5.490

* in radians, gauss, centim.

Forchheimer, 1900

%	$(\alpha)_{magn.}$	%	$(\alpha)_{magn.}$
	20°		
1.90	2.342	12.94	2.346
4.05	.383	19.30	.248
5.65	.414	27.10	.207
7.17	.395		

Okazaki, 1933

%	Verdet's constant (3441 Å)
28°	
3.31	0.04676
7.78	.05134
13.89	.05683
20.38	.06317
25.88	.06809
28.52	.07088

Scott and Blair jr, 1933

%	χ	%	χ
	29°		
6.54	-0.712	18.20	-0.698
9.15	.710	18.53	.700
15.00	.704	18.66	.694
15.48	.702	19.28	.698
15.95	.702	19.81	.696
16.48	.700	20.19	.696
16.83	.700	26.45	.688
17.36	.701	27.27	.688
17.81	.699		

Mc Clung and Mc Intosh, 1902

d	X - ray absorp.	d	X - ray absorp
	room t.		
1.000	53.0	1.079	86.9
1.026	73.4	1.112	89.9
1.049	80.8	1.160	94.2

Ochs, Gueron and Magat, 1940

Raman spectrum.

Dolezalek, 1898

N	e	N	e
	30°		
4.98	1.190	11.00	1.008
5.00	.189	11.20	1.005
5.50	.185	11.50	1.001
6.00	.160	11.62	0.999
6.43	.147	12.00	0.989
6.50	.145	12.14	0.981
		12.25	0.974

Grotrian, 1874

t	κ	t	κ	t	κ
d^{15} = 1.030		d^{15} = 1.0425		d^{15} = 1.089	
8.02	2765	8.07	4260	7.31	6609
20.41	3404	23.61	5494	23.10	8445
32.34	4054	32.23	6190	32.33	9636
d^{15} = 1.111		d^{15} = 1.1395		d^{15} = 1.151	
9.15	7031	7.01	6437	10.11	6675
25.25	9014	9.05	6725	24.68	8110
33.15	9962	21.74	8081	33.09	9196
		23.09	9461		
		32.84	9437		

Kohlrausch, 1876

%	κ	$\tau.10^4$
	18°	
4.74	3767	159
9.81	6208	157
19.50	7602	155
29.48	6656	153
29.54	6651	-
39.03	5274	-

Fink, 1885

P	κ 0°	κ 18°	P	κ 0°	κ 18°
		0.98 %			
1	803	1078	300	845	1112
109	818	1089	400	856	1125
200	831	1101	500	868	1135
		5.02 %			
1	3186	4545	300	3305	4688
109	3215	4596	400	3351	4737
200	3256	4648	500	3387	4778
		10.34 %			
1	5200	7290	300	5400	7500
109	5270	7360	400	5460	7570
200	5330	7430	500	55200	7620
		18.16 %			
1	6140	8690	300	6290	8890
109	6200	8760	400	6350	8960
200	6250	8830	500	6410	9020
		25.34 %			
1	5870	8190	300	5980	8340
109	5920	8250	400	6000	8390
200	5950	8300	500	6020	8430

Green, 1908

M	λ	M	λ
24.9°			
0.9955	329.0	5.981	141.42
2.018	281.25	6.810	121.90
3.032	236.1	7.765	103.20
3.467	219.9	8.918	84.89
4.587	181.0	10.470	65.48
5.905	142.95	11.970	52.18

Müller, 1912

M	κ relative	M	κ relative	M	κ relative
18°		51°		81°	
1.0	103.83	0.9883	155.03	0.9798	193.72
1.691	156.49	1.671	234.74	1.645	294.36
2.533	203.90	2.502	306.48	2.465	388.83
3.402	236.76	3.359	357.09	3.311	454.75
5.103	265.08	5.033	399.69	4.962	515.36
6.794	262.92	6.693	397.23	6.598	517.41

Howell, 1927

$N_{(18°)}$	$\kappa_{(20°)}$	$N_{(18°)}$	$\kappa_{(20°)}$
1.048	3196	7.126	7647
2.096	5375	7.336	7585
3.144	6760	7.860	7434
3.668	7190	8.384	7258
4.192	7508	9.432	6874
4.716	7715	10.48	6389
5.240	7823	11.48	6021
5.764	7854	12.26	5749
6.288	7799	12.83	5564
6.498	7771	13.38	5357
6.812	7728		

Jones and Getman, 1902, 1903 and 1904

M	λ	M	λ
0°			
0.5	216.50	2.0	170.19
1.0	200.32	2.5	152.38
1.5	182.35	3.0	141.87

Jones, 1904 and Jones and Bassett, 1905

M	λ	M	λ
0°			
0.05	234.0	0.8	200.5
0.1	228.5	0.9	196.0
0.2	218.0	1.0	191.0
0.3	217.0	2.0	166.6
0.4	214.0	3.0	141.1
0.5	209.5	4.0	120.2
0.6	208.0	5.0	100.2
0.7	204.0	6.0	83.05

Johnston, 1906

M	λ	M	λ
0.001	243.2	4	124.7
0.01	244.2	5	108.8
1	189.0	8	68.5
2	154.4	10	45.7

Tammann and Tofaute, 1929

pKg	100 (λp - λp = 1)/λp = 1					
	0.1N	0.5N	1.0N	5.0N	8.0N	12.87N
			19.18°			
500	5.31	5.42	5.46	4.08	2.85	1.25
1000	9.35	10.08	10.12	7.82	5.17	.57
1500	13.75	13.92	13.93	10.77	7.47	.65
2000	16.71	16.85	16.89	13.12	9.42	.41
2500	19.40	19.67	19.73	15.22	10.61	0.76
3000	21.45	21.69	21.80	17.00	11.10	0.16

Gelbstein, Shcheglova and Temkine, 1956

m	Acidity function (- lg ho)			
	20°	40°	60°	80°
0.1	1.09	1.10	1.12	-
0.4	0.40	0.35	0.30	-
0.8	0.08	0.01	-0.07	-0.16
1.0	-0.06	-0.12	-0.12	-0.23
2.0	-0.53	-0.59	-0.65	-0.71
3.0	-0.86	-0.93	-1.00	-1.06
4.0	-1.18	-1.24	-1.30	-1.36
5.0	-1.47	-1.53	-1.59	-1.65
6.0	-1.76	-1.83	-1.89	-1.96
6.5	-1.91	-1.97	-2.04	-2.00

Heat constants.

Thomsen, 1870

mol%	U
	18°
0.5	0.978
1	.963
2	.931
4.8	.854
9	.748

Hammerl, 1879

%	U -12° - +12°	U 12°- 30°
0	1	1
4.8	-	0.9310
6.53	-	.8983
12.50	0.8076	.8132
18.30	.7436	.7502
23.82	.6868	.6895
25.37	.6797	-
28.18	.6602	-
32.37	.6270	-

Tucker, 1915

mol%	U	mol%	U
	10°		
3.91	0.855	12.12	0.662
5.10	.815	15.11	.619
7.15	.766	16.83	.599
9.87	.702	18.57	.588

t	U	t	U	t	U
9.45mol%		12.96mol%		19.19mol%	
-3.92	0.722	-4.03	0.657	-3.87	0.589
+5.89	.715	+1.30	.647	+11.94	.583
19.78	.718	16.25	.651	17.05	.585
24.01	.732				
28.07	.751				

Wrevsky and Kaigorodoff, 1924

%	U 3.3°	U 20.5°	U 40.4°	U 60.5°
4.0	0.9282	0.9286	0.8425	-
10.2	.8264	.8348	.7765	0.8541
15.5	.7520	.7627	.7107	-
21.49	.6851	.6966	.6662	.7230
25.81	.6437	.6570	.6220	.6858
31.72	.5973	.6097	.6044	.6455
37.70	.5665	.5825	-	.6357

Berthelot, 1873

mol% initial	mol% final	Q dil. (by mole HCl)	mol% initial	mol% final	Q dil. (by mole HCl)
0.90	0.45	50	21.28	0.83	3130
1.95	.66	175	21.92	.43	3170
2.04	.67	180	22.47	.45	3610
4.28	.58	420	23.80	.50	3770
6.29	.57	690	25.45	.50	3890
8.66	.40	1040	26.52	.52	4350
12.99	.60	1670	26.70	.55	4390
16.47	.35	2290	28.57	.38	4470
20.04	.41	2865	30.67	.47	5150
			31.54	.41	5310

Tucker, 1915

mol% initial	mol% final	Q dil. 20°	mol% initial	mol% final	Q dil. 20°
4.74	2.37	18.54	12.73	12.20	289.2
7.20	4.74	52.8	14.01	12.73	353.8
8.39	7.20	100.4	15.61	14.01	439.3
9.77	8.39	128.3	17.25	15.61	527.5
10.67	9.77	186.2	19.03	17.25	635

t	Q dil.	t	Q dil.
15.86mol%		18.19mol%	
+3.57	455.9	+2.12	510.5
20.00	498.7	9.61	551.6
		20.00	581.3

Wrewski and Faerman, 1929

% L	% V	Q vap. cal/gr.	% L	% V	Q vap. cal/gr.
	78°			21°	
10.81	0.7	554.3	31.05	88.7	361.4
16.89	4.2	558.2	33.00	94.35	327.0
19.90	11.35	544.9	34.85	97.0	304.9
21.95	20.90	531.7	35.57	97.8	294.7
23.68	34.60	505.5	36.95	99.0	278.2
25.50	50.40	473.2	37.61	-	244.8
27.91	70.50	421.0			
29.71	82.40	377.8			

Jäger, 1891

%	heat conductivity coefficient
0	100
12.5	87.0
25	79.4
38	72.6

Water + Hydrobromic acid (HBr)

Heterogeneous equilibria.

Ditte, 1877

t	p diss.	t	p diss.
	(8+1)		
-6	108	30	287
0	135	41	335
+11	191	54	404
14	209	62	440

Roozeboom, 1885

t	p diss.	t	p diss.
	(2+1)		
-25	270	-11.3	520
-20	330	-5	690
-15	430	-3	760

p	%	p	%
	sat.sol.		
-25°		-20°	
760	71.83	760	71.19
300	69.39	375	69.38
140	67.74	180	67.93
100	67.27	130	67.27
10	63.71	20	64.91
5	52.38		
-15°		-11.3°	
760	70.50	760	79.35
470	69.37	570	69.36
250	67.93	310	67.92
175	67.27	216	67.26
102	66.45		
-5°		0°	
760	69.52	760	68.87
730	69.36	540	67.90
430	67.91	380	67.25
298	67.26	50	52.04

%	b.t.	%	b.t.
56.52	100	69.52	-5
60.08	75	70.05	-10
63.17	50	70.50	-15
65.88	25	71.19	-20
67.77	10	71.83	-25
68.87	0		

Bates and Kirschman, 1919

m	p_2	m	p_2
	25°		
5.851	0.00153	9.143	0.0232
6.394	.0032	9.655	.0466
7.632	.0058	10.440	.0888
8.315	.0115	10.950	.143
8.325	.0134		

Vrevskii, Sawaritsky and Scharloff, 1924

%		mol%		p	p_2	p_1
L	V	L	V			
			19.93°			
47.83	10.44	16.94	2.53	5.1	0.1	5.0
49.84	28.70	-	-	-	-	-
52.10	50.19	19.60	18.32	4.3	0.8	3.5
55.00	85.10	21.38	55.62	4.9	2.8	2.2
56.00	94.72	22.73	80.00	8.1	6.5	1.6
			54.83°			
10.30	0.00	2.40	0.00	109.6	0.00	109.6
"	"	"	"	109.7	"	109.7
20.58	"	5.45	"	99.7	"	99.7
"	"	"	"	99.4	"	99.4
39.85	1.38	12.85	0.32	58,6	0.2	58.4
"	1.11	"	.25	57.4	0.1	57.3
47.03	19.31	16.94	.35	38.3	1.9	36.4
49.95	40.91	18.20	13.30	36.9	4.9	32.0
"	40.05	"	13.00	36.4	4.7	31.7
51.01	52.75	18.80	19.90	34.6	6.9	27.7
"	52.77	"	"	33.9	6.6	27.3
51.71	59.83	19.20	24.89	36.3	9.0	27.3
"	60.45	"	25.42	35.2	8.9	26.3
52.10	62.35	19.60	26.93	35.6	9.6	26.0
53.35	78.57	20.28	44.92	40.3	18.1	22.2
"	78.97	"	45.52	39.5	18.6	21.5
54.61	84.55	21.12	54.90	51.6	28.3	28.3
55.00	89.57	21.38	65.63	53.3	35.0	18.3
57.17	96.48	22.85	85.93	104.0	89.4	14.6
"	96.56	"	86.38	103.3	89.2	14.1
58.50	98.13	23.87	92.14	-	-	-
"	98.09	"	91.96	-	-	-
60.17	93.15	25.17	96.30	272.0	260.7	11.3
			79.9°			
47.07	24.12	16.52	6.60	47.07	24.12	
49.58	49.28	18.01	17.78	49.68	49.28	
52.00	69.6	19.40	33.8	52.00	69.6	
"	68.7	"	32.8	"	68.7	
56.51	94.96	22.48	83.7	56.51	94.96	
"	94.42	"	79.7	"	94.42	
59.10	97.8	24.33	90.7	59.20	97.8	
"	"	"	90.8	"	"	
58.5	97.93	23.87	91.33	58.50	97.93	
"	"	"	91.33	"	"	
"	97.66	"	90.26	"	97.66	

Carrière and Cerveau, 1923

%(L)	b.t.	%(L)	b.t.
15	103.5	47.5	126
21.4	106.5	48.4	124.5
24.8	107.5	49.3	123.5
30.8	111.5	50.8	110
34.8	114	53.6	40
38.2	116.5	55	31
41.8	120.6	56.7	28
43.6	123.6	57.8	26
		60	22

%(V)	b.t.	%(V)	b.t.
0.03	100.5	57.5	124
.10	102	91	105
.40	104	95	90
.75	106.5	97	45
10.5	116	97.3	29.5
24.5	123	98.8	27.5
47.5	126	99	25
54.3	125.25		

Bonner, Bonner and Gurney, 1933

Az

p	b.t.	%	p	b.t.	%
100	74.12	49.80	700	122.00	47.74
200	90.35	49.28	800	125.79	47.56
300	99.91	48.83	900	129.13	47.40
400	107.00	48.47	1000	132.12	47.27
500	112.94	48.19	1100	134.80	47.14
600	117.82	47.95	1200	137.34	47.03

Ewing and Shadduck, 1925

Az : 47.795%

Almèn, 1898

%	a .10^5
1	0.00112
4	.00116
5	.00118
10	.00116
15-49	.00115

a = Dv/G, where G is the absorbed volume of gaseous HBr

Robinson and Stokes, 1949

m	osmotic coef.	m	osmotic coef.
	25°		
0.1	0.948	0.6	1.007
.2	.954	.7	.023
.3	.964	.8	.038
.4	.978	.9	.054
.5	.993	1.0	.072

Pickering, 1893

%	f.t.	%	f.t.
	H_2O		
3.490	-1.5	24.437	-25.1
4.289	1.65	24.812	26.6
6.396	3.0	27.117	30.1
7.277	3.4	27.301	32.7
11.202	6.8	28.897	37.3
12.188	6.9	29.974	37.9
13.749	9.3	30.216	41.8
15.882	11.7	31.583	46.3
16.280	11.6	32.864	47.9
17.993	14.5	33.243	53.3
19.387	15.6	34.692	59.4
19.940	17.5	35.677	58.4
21.712	20.7	35.755	64.8
21.963	19.4	38.394	-73.4
23.637	-24.1		
	(4+1)		
47.069	-66.5	52.066	-56.3
48.395	62.2	52.986	55.7
48.878	62.9	53.370	56.2
49.714	57.6	53.932	56.3
50.935	56.7	54.772	-56.8
51.290	-58.6		
	(3+1)		
55.414	-55.9	58.415	-48.4
55.699	54.6	58.816	50.4
56.550	51.8	59.517	47.9
57.180	53.8	60.500	-48.4
57.553	-49.8		
	(2+1)		
60.346	-47.2	64.447	-21.9
61.691	38.3	65.375	27.4
62.149	46.9	65.759	16.2
63.069	28.8	67.396	11.9
63.786	-33.4	68.728	-11.2

Jones, 1904; Jones and Bassett, 1905

M	f.t.	M	f.t.
0.1229	-0.451	1.229	-5.440
.1843	-0.657	1.843	-9.200
.2457	-0.880	2.457	-15.0
.3686	-1.350	3.072	-21.5
.4914	-1.845	3.686	-29.0
.6143	-2.316	4.300	-41.0

Properties of phases .

Topsöe, 1870

%	d	%	d
	14°		
0	0.999	25	1.205
1	1.006	26	.214
2	.013	27	.224
3	.020	28	.234
4	.027	29	.245
5	.034	30	.256
6	.042	31	.267
7	.049	32	.278
8	.057	33	.289
9	.064	34	.301
10	.072	35	.313
11	.080	36	.325
12	.088	37	.335
13	.096	38	.350
14	.105	39	.362
15	.113	40	.375
16	.121	41	.388
17	.130	42	.402
18	.139	43	.416
19	.148	44	.430
20	.157	45	.444
21	.166	46	.458
22	.175	47	.472
23	.185	48	.386
24	.195	49	.501

Wright, 1871

%	d	%	d
	15°		
0	0.999	40.8	1.384
10.4	1.079	48.5	.474
23.5	.189	49.8	.514
30.0	.247		

Berthelot, 1873

mol %	t	d
0.74	18	1.023
1.50	18	.046
3.01	13	.093
4.35	14	.131
9.24	13	.280
12.43	14	.365
22.42	14	.600
32.84	15	.792

Kohlrausch, 1876

%	d
	15°
0	0.9991
5.25	1.0339
10.52	.0706
15.66	.1094

Biel, 1882

%	d	%	d
	15°		
0	0.9991	26	1.218
1	1.0073	27	.228
2	.0146	28	.238
3	.0221	29	.248
4	.0296	30	.259
5	.037	31	.269
6	.045	32	.280
7	.052	33	.291
8	.060	34	.302
9	.068	35	.313
10	.076	36	.325
11	.084	37	.337
12	.092	38	.349
13	.101	39	.361
14	.109	40	.374
15	.118	41	.387
16	.126	42	.400
17	.135	43	.414
18	.144	44	.428
19	.153	45	.443
20	.162	46	.458
21	.171	47	.473
22	.180	48	.489
23	.189	49	.495
24	.199	50	.512
25	.208		

Perkin, 1889

%	d 4°	10°	15°	25°
0	-	0.9997	0.9991	0.9971
15.47	-	-	1.1162	1.1113
24.60	-	-	.2038	.1990
39.71	1.3850	-	.3774	.3708
56.00	-	-	.6103	.6017
65.59	1.7978	1.7914	.7857	-

Pickering, 1893

%	d	%	d
	15°		
0	0.999868	52.010	1.558199
5.4590	1.038674	52.723	.567934
10.2258	.075679	53.029	.574158
18.8511	.122792	53.936	.587476
20.5357	.165279	53.949	.587695
25.7661	.216692	54.813	.601491
31.4824	.278364	55.701	.616653
34.7356	.316402	55.761	.618365
39.3818	.374766	56.458	.628475
41.2954	.400219	56.648	.632845
42.9777	.423322	57.613	.648607
44.349	.441741	57.691	.651415
44.7985	.449141	58.582	.664565
45.372	.457340	58.798	.669405
46.431	.472459	59.478	.681383
46.986	.479224	59.499	.680514
47.227	.483630	60.507	.700394
48.225	.498193	61.545	.720028
48.987	.509520	62.310	.733345
49.490	.515815	63.465	.752372
50.640	.535617	63.931	.762986
51.443	.545971	64.757	.776244
51.494	.548080	65.186	.784496

Taylor and Ranken, 1903-04

M	d	M	d	M	d
0°		15°		25°	
1	1.0530	1	1.0512	1	1.0489
2	.1052	2	.1020	2	.0990
3	.1540	3	.1495	3	.1460

Jones, 1904; Jones and Bassett, 1905

M	d	M	d
	0°		
0	0.999868	1.229	1.055700
0.0614	1.002300	1.843	.083300
.1229	.005400	2.457	.114000
.1843	.008100	3.072	.138000
.2457	.011200	3.686	.155100
.3686	.016200	4.300	.193100
.4914	.021800	5.7297	.258400
.6143	.028100		

Rubien, 1911

M	d	M	d
	18°		
0	0.99862	1.006	1.0546
0.0998	1.00429	2.014	1.1111
0.200	1.00989	3.872	1.2149
0.503	1.0269		

Heydweiller, 1912

M	d	M	d
	18°		
0.0998	1.00426	2.016	1.1114
0.2000	.00989	3.877	.2152
0.5030	.02692	6.473	.3601
1.0060	.05499		

Hantzsch and Dürigen, 1928

%	d	%	d
	20°		
4.3043	1.02590	13.042	1.09200
6.038	.03866	18.342	.13672
8.253	.05460	23.032	.17947
9.422	.06433	30.110	.25060
10.601	.06866	48.923	.48790

Bonner, Bonner and Guerney, 1933

%	d	%	d
	25°		
47.03	1.4700	47.95	1.4832
47.14	.4716	48.19	.4866
47.27	.4733	48.47	.4908
47.40	.4752	48.83	.4961
47.56	.4775	49.28	.5030
47.74	.4802	49.80	.5116

Taylor and Rankin, 1903 - 1904

M	η (water°=1)
0°	
1	0.987
2	.970
3	.962
15°	
1	0.650
2	.657
3	.671
25°	
1	0.514
2	.529
3	.544

Rubien, 1911

M	n_D	M	n_D
	18°		
0	1.33327	1.006	1.34578
0.0998	1.33451	2.014	1.35822
0.200	1.33579	3.872	1.38115
0.503	1.33956		

Hantzsch and Dürigen, 1928

%	n_D	%	n_D
	20°		
4.3043	1.33987	13.142	1.35438
6.038	.34270	18.342	.36433
8.253	.34618	23.032	.37367
9.422	.34837	30.110	.38921
10.601	.34924	48.923	.43992

Perkin, 1889

%	t	$(\alpha)_{magn.}$
15.47	16.5	1.2711
24.60	18	.4713
39.71	21	.8503
56.00	22	2.3207
65.59	17.4	2.6100

Kohlrausch, 1876

%	κ	$\tau.10^4$
	18°	
5.25	1990	153
10.52	3692	153
15.66	5005	151

Taylor and Rankin, 1903-04

N	λ
0°	
1	203.0
2	175.0
3	148.3

Jones, 1904, Jones and Bassett, 1905

M	λ	M	λ
	0°		
0.0614	244.0	1.229	194.2
.1229	238.2	1.843	174.7
.1843	230.5	2.457	171.0
.2457	227.5	3.072	145.8
.3686	224.0	3.686	129.3
.4914	220.3	4.300	115.8
.6143	211.7		

Johnston, 1906

N	λ
0°	
0.001	233.4
.010	226.1
.5	214.7
2.5	152.5
5.0	105.8

Heydweiller, 1912

M	κ	M	κ
	18°		
0.0998	355	2.016	5101
0.2000	694.5	3.877	7070
0.5030	1655	6.473	7335
1.0060	3029		

Heat constants

Roozeboom, 1886

mol%	U	mol%	U
	12 - 30°		
0	1.0000	17.09	0.4694
0.50	0.9688	17.70	.4640
0.99	.9402	19.95	.4340
1.96	.8876	25.51	.3742
4.74	.7641	26.88	.3608
9.09	.6154	28.74	.3524
12.48	.5397	33.33	.3553
14.95	.5005	35.21	.3827
16.89	.4711		

For Q dil. see author .

Berthelot, 1873

mol% initial	mol% final	Q mix (by mole HBr)	mol% initial	mol% final	Q mix (by mole HBr)
0.37	0.19	0	9.24	3.03	0.69
0.74	0.37	0.015	12.43	0.56	1.21
1.50	0.75	.10	22.42	.40	3.15
3.01	1.49	.15	31.06	.44	5.46
4.35	0.37	.35	32.36	.75	5.61
9.24	0.75	1.02	32.67	.75	5.68
9.24	1.92	0.94	32.84	.44	5.75

Water + Hydroiodic acid (HI)

Bates and Kirschmann, 1919

m	p_2	m	p_2
	25°		
5.971	0.00051	8.697	0.0192
6.038	.00053	9.251	.0271
6.171	.00093	9.332	.0536
7.586	.00355	9.776	.0937

Almen, 1898

%	$a \cdot 10^5$
1	120
3	162
15	170
45	163
58	162

a = Dv/G, where G is the absorbed volume of Gaseous HI

Carrière and Ducasse, 1926

%(L)	b.t.	%(V)	dew point
64.9	86	98.8	60
64.0	100	98.5	62
61.1	108	96	75
60.0	112	93	84
59.4	118	90	95
58.0	123	70	121
56.8	124	69.8	122
56.7	126.5	56.7	126.5
55.5	126	55	126
54.9	125.8	51.7	125.5
54.0	125.2	23	123.2
52.75	124	15	122
52.5	123.2	5	120
50.0	118	1.5	105
48.0	116	0.5	101.5
42.7	111	0.3	101
39.0	109	0.2	100.25
33.6	107	0.1	100.1
27.3	105	0.03	100
15.1	102		

Rüdorff, 1862

%	f.t.
2.71	-0.70
4.80	-1.30
7.55	-2.10
13.57	-4.25

Pickering, 1893

%	f.t.	%	f.t.
(two series)			
5.70	-1.3	34.52	-27.9
9.171	2.9	36.171	33.2
9.61	2.6	36.53	31.9
13.82	4.7	38.51	37.2
16.059	6.7	39.645	43.4
16.38	6.0	40.35	42.7
16.84	6.4	42.12	48.2
19.53	8.8	43.057	55.4
22.122	11.4	44.07	58.2
22.54	10.9	46.08	77.4
25.29	13.5	46.42	66.7
25.772	14.9	48.74	-77
28.05	16.4		
29.188	19.4		
30.50	19.4	ice	
32.39	22.7		
32.674	-25.6		
(4+1)			
48.850	-82.4	62.298	-36
51.703	71.9	62.632	35.9
52.045	74	63.76	36.0
54.277	58.9	63.779	35.5
54.602	56	64.622	36.4
56.480	50.4	65.31	36.8
56.774	50	65.510	38.2
58.582	43.1	66.60	39.5
58.731	42.9	67.261	43.1
60.588	38.8	67.53	42.9
60.624	37.8	68.57	- 46.5
62.00	- 37.5		
(3+1)			
69.217	-47.8	71.118	-48.2
69.46	48.6	72.15	50.0
70.32	48.1	72.92	-53.5
71.09	-48.75		
(2+1)			
73.111	-52.2	75.15	-51.0
73.95	56.0	75.97	-48.0
74.661	-47.8		

Robinson and Stokes, 1949

m	osmotic coef.	m	osmotic coef.
25°			
0.1	0.953	1.0	1.113
.2	.969	.2	.153
.3	.984	.4	.193
.4	1.001	.6	.233
.5	.019	.8	.273
.6	.038	2.0	.315
.7	.057	2.5	.424
.8	.075	3.0	.535
.9	.094		

Topsöe, 1870

%	d	%	d
13°			
1	1.007	30	1.270
2	.014	31	.282
3	.021	32	.294
4	.028	33	.306
5	.036	34	.319
6	.044	35	.332
7	.052	36	.345
8	.060	37	.358
9	.068	38	.371
10	.076	39	.385
11	.084	40	.399
12	.092	41	.413
13	.101	42	.428
14	.109	43	.443
15	.117	44	.458
16	.126	45	.474
17	.136	46	.490
18	.145	47	.507
19	.154	48	.524
20	.164	49	.542
21	.174	50	.560
22	.184	51	.578
23	.194	52	.596
24	.204	53	.614
25	.215	54	.633
26	.226	55	.653
27	.237	56	.673
28	.248	57	.693
29	.259	58	.712

Wright, 1871

%	d	%	d
15°			
0	0.999	39.2	1.441
5.9	1.052	47.2	.550
18.5	.174	51.9	.706
30.3	.296		

Berthelot, 1873

mol%	d	mol%	d
	14°		
4.9	1.256	18.7	1.808
8.5	.400	21.4	.912
8.9	.413	23.5	.984
11.1	.536	25.0	2.031

Perkin, 1889

%	d 4°	d 15°	d 25°
0	0.9982	0.9991	0.9971
20.77	-	1.1760	1.1719
31.77	-	.2966	.2939 (20°)
42.70	-	.4494	.4424
56.78	1.7115	.7006	.6912
61.97	.8349	.8228	
65.10	.9182	.9056	1.8947
67.02	.9600	.9472	.9357

Rubien, 1911

M	d	M	d
	18°		
0	0.99862	0.4979	1.04429
.0998	1.00775	.9942	.08980
.1990	1.01687	2.0200	.1857

Heydweiller, 1912

M	d	M	d
	18°		
0.0998	1.00775	2.032	1.1857
.1990	.01687	4.020	.3691
.4979	.04429	5.460	.5033
.9942	.08980		

Heydweiller, 1909

N	n_D	N	n_D
	18°		
0	1.33327	0.5	1.34346
0.1	.33525	1.0	.35387
0.2	.33734	2.0	.37497

Rubien, 1911

M	n_D	M	n_D
	18°		
0	1.33327	0.4979	1.34342
0.0998	.33524	0.9942	.35375
0.1990	.33732	2.0200	.37539

Perkin, 1889

%	t	$(\alpha)_{magn.}$
20.77	20.4	1.5650
31.77	15.9	1.9526
42.70	15.2	2.4350
56.78	21.5	3.2170
61.97	17.6	3.5716
65.10	16.5	3.7793
67.02	21.1	3.8996

Heydweiller, 1912

M	κ	M	κ
	18°		
0.0998	346.2	2.032	5179
.1990	685.7	4.020	7157
.4979	1606	5.460	7330
.9942	2958		

Berthelot, 1873

mol% initial	mol% final	Q dil. (by mole HI)
0.93	0.31	0
2.70	.93	0.05
4.90	.71	.115
8.50	.32	.480
8.50	2.70	.430
8.90	2.80	.430
11.10	0.67	.950
18.70	.89	2.180
21.40	.54	3.100
23.50	.54	3.740
25.30	.28	3.980

Water + Hydrogen peroxide (H_2O_2)

Scatchard, Kavanagh and Ticknor, 1952

mol%	p	mol%	p	mol%	p
44.50°		60.00°		75.00°	
51.40	27.417	96.19	19.30	95.96	42.72
		84.23	26.10	85.72	53.86
90.00°		68.31	39.46	74.60	70.01
		57.79	51.64	57.51	105.20
4.03	95.97	40.75	77.26	49.63	126.06
15.82	84.18	28.10	99.97	48.99	127.88
34.54	65.46	20.36	114.50	32.41	180.53
48.82	51.18	9.05	134.99	27.77	196.67
50.20	49.80			19.72	225.10
67.43	32.57	105.00°		7.45	266.77
80.46	19.54				
90.06	9.94	49.85	413.33		

Kubaschewski and Weber, 1950 (fig.)

%	f.t.	E	%	f.t.	E
0	0	0	59.0	-55.5	-55.5E_2
20	-12	-27	80	21	55.5
30	26	52.5	86	14	55.5
45.8	52.5	52.5 E_1	90	-10	-55.5
48.5	-52.5	-50.5	100	0	0

Mironov and Bergman, 1951 (fig.)

%	f.t.	E	%	f.t.	E
0	0	0	60.2	-55.7	-55.7
20	-12	-52.5	70	39	55.7
40	40	52.5	76.5	29	55.7
46.1	52.5	52.5	90	13	-55.7
49	-50.2(2+1)	-	100	-2	-

Carrara, 1892

%	t	d
0	24.0	0.99732
7.98	23.2	1.02674
11.85	23.3	.04625
14.50	25.4	.05009
25.10	23.2	.09438

Maass and Hatcher, 1920

%	d 0°	d 18°
0	0.99987	0.99862
10.57	1.0419	1.0372
22.33	.0894	.0815
40.14	.1655	.1552
56.70	.2404	.2270
61.20	.2610	.2465
73.44	.3235	.3071
84.86	.3839	.3662
98.42	.4144	,3953
98.89	.4596	.4404

Huckaba and Keyes, 1948

%	d	%	d
0°			
100	1.4709	80.023	1.3590
99.605	.4685	71.354	.3139
99.479	.4681	59.171	.2539
96.282	.4499	40.009	.1660
96.228	.4493	19.979	.0803
95.987	.4483	9.657	.0379
89.379	.4100	0.000	0.9998

Kubaschewski and Weber, 1950 (fig)

%	d 0°	d 18°
0	1.0	1.0
20	1.08	1.07
40	1.15	1.14
60	1.24	1.23
80	1.33	1.31
100	1.46	1.44

Easton, Mitchell and Wyne-Jones, 1952

%	d	%	d
0°			
0.0	0.9999	55.69	1.2373
7.36	1.0291	65.07	.2822
17.14	.0690	74.96	.3321
24.36	.0987	83.27	.3759
33.23	.1370	91.55	.4221
44.62	.1860	96.65	.4517
10°			
0.0	0.9998	55.15	1.2266
4.32	1.0150	60.24	.2523
10.69	.0394	65.32	.2747
17.28	.0652	70.69	.3012
23.65	.0906	77.04	.3335
29.93	.1163	80.21	.3499
36.33	.1432	86.77	.3851
41.28	.1668	89.00	.3973
49.27	.1997	94.25	.4261
		98.60	.4515
25°			
0.0	0.09970	49.88	1.1909
1.91	1.0036	53.48	.2067
5.99	.0179	55.08	.2143
9.23	.0295	59.68	.2353
13.47	.0452	62.55	.2490
17.44	.0597	64.88	.2593
21.14	.0737	68.97	.2790
24.58	.0868	73.15	.2996
27.96	.0996	73.66	.3024
29.99	.1078	76.66	.3166
34.23	.1244	80.64	.3378
39.12	.1450	84.97	.3595
40.67	.1515	89.68	.3848
42.97	.1610	89.78	.3855
47.02	.1785	89.89	.3855
50°			
0.0	0.9880	47.07	1.1580
6.96	1.0106	57.21	.2020
12.53	.0289	59.60	.2123
20.36	.0564	66.22	.2425
30.21	.0914	74.37	.2814
39.25	.1267	86.53	.3419
96°			
0.0	0.9615	52.55	1.1390
11.40	0.9950	60.65	.1726
14.84	1.0054	66.20	.1952
26.80	.0428	73.40	.2299
37.97	.0834	84.30	.2788
45.03	.1116	89.30	.3038

Maass and Hatcher, 1920

%	η 0°	η 18°	%	η 0°	η 18°
0.00	1778	1054	52.49	1876	1235
5.71	1762	1061	59.62	1900	1266
15.21	1740	1066	68.50	1938	1285
14.48	1734	1072	75.03	1929	1292
22.33	1758	1105	83.15	1909	1300
34.05	1805	1157	89.47	1873	1301
44.83	1846	1204	98.89	1828	-

Satterfield, Wentworth and Demetriades, 1954(fig.)

mol % (V)	η (in V) 170°	200°	240°
0	15.8	16.8	18.2
20	15.5	16.5	17.8
40	15.2	-	-
60	14.9	-	-

Maass and Hatcher, 1920

%	σ 0°	%	σ 18°
0.00	75.49	0.00	72.82
17.57	75.91	12.78	73.22
18.17	76.14	23.70	73.51
27.22	76.26	28.14	73.67
34.58	76.55	44.31	74.13
56.06	77.31	59.27	74.67
59.27	77.38	60.83	74.73
86.31	78.30	79.01	75.29
		90.66	75.67

Carrara, 1892

%	n Hα	D	Hβ	Hγ
23 - 24°				
0	1.33045	1.33306	1.33712	1.33108
7.98	.33560	.33746	.34162	.34497
11.85	.34039	.34228	.34653	.34973
14.50	.34027	.34197	.34601	.34959
25.10	.34754	.34967	.35396	.35792

Cuthbertson and Maass, 1930

%	n Hα	Hβ	Hγ
24.5°			
13.85	1.3409	1.3476	1.3515
35.48	.3557	.3623	.3657
55.60	.3701	.3768	.3814
74.79	.3851	.3914	.3984
89.36	.3957	.4032	.4091

Giguère, 1947

%	n C	n D	n F	n G
		16°		
0.0	1.3313	1.3333	1.3374	1.3405
10.0	.3380	.3398	.3440	.3473
19.8	.3446	.3465	.3507	.3540
30.8	.3522	.3541	.3585	.3619
41.1	.3597	.3616	.3660	.3695
49.7	.3659	.3679	.3723	.3758
60.0	.3738	.3759	.3804	.3842
70.1	.3820	.3840	.3886	.3924
79.9	.3901	.3922	.3968	.4007
90.4	.3991	.4012	.4058	.4095
99.0	.4067	.4089	.4137	.4176
100.0	.4076	.4097	.4148	.4186
		20°		
0.0	1.3311	1.3329	1.3371	1.3402
10.0	.3375	.3394	.3435	.3468
19.8	.3441	.3460	.3502	.3536
30.8	.3515	.3534	.3577	.3612
41.1	.3587	.3607	.3651	.3685
49.7	.3651	.3671	.3715	.3750
60.0	.3729	.3749	.3793	.3830
70.1	.3811	.3831	.3876	.3914
79.9	.3892	.3912	.3958	.3995
90.4	.3980	.4001	.4047	.4085
99.0	.4057	.4079	.4127	.4167
100.0	.4066	.4087	.4136	.4175
		24°		
0.0	1.3307	1.3326	1.3367	1.3400
10.0	.3370	.3389	.3431	.3464
19.8	.3434	.3453	.3495	.3529
30.8	.3508	.3527	.3569	.3603
41.1	.3581	.3601	.3643	.3678
49.7	.3643	.3664	.3707	.3743
60.0	.3722	.3743	.3788	.3822
70.1	.3804	.3824	.3870	.3907
79.9	.3883	.3903	.3949	.3985
90.4	.3969	.3991	.4037	.4076
99.0	.4046	.4067	.4114	.4153
100.0	.4054	.4076	.4122	.4160
		28°		
0.0	1.3305	1.3322	1.3364	1.3396
10.0	.3365	.3383	.3424	.3458
19.8	.3427	.3446	.3487	.3522
30.8	.3499	.3518	.3561	.3596
41.1	.3572	.3592	.3635	.3669
49.7	.3636	.3656	.3700	.3735
60.0	.3711	.3731	.3776	.3812
70.1	.3796	.3816	.3861	.3898
79.9	.3873	.3893	.3939	.3976
90.4	.3959	.3980	.4027	.4064
99.0	.4032	.4053	.4101	.4140
100.0	.4040	.4061	.4111	.4149

Giguère and Geoffrion, 1949

%	n_D 20°	n_D 25°	%	n_D 20°	n_D 25°
0.00	1.33299	1.33251	60.66	1.37508	1.37389
10.10	.33946	.33881	70.15	.38284	.38151
19.98	.34603	.34521	79.86	.39072	.38927
30.11	.35296	.35203	92.36	.40157	.39998
40.03	.35986	.35885	96.26	.40495	.40333
50.10	.36724	.36611	99.30	.40774	.40607

Cuthbertson and Maass, 1930

%	ε	%	ε
	0°		
0	84.4	43.25	116.2
6.9	94.0	50.23	115.0
14.0	108.5	63.80	108.8
20.8	113.5	81.27	101.6
25.8	116.0	98.87	91.2
32.0	119.0	99.45	89.2
36.3	121.1		

Gross, jr. and Taylor, 1950

mol%	wt%	ε 30°	ε 20°	ε 10°	ε 0°
0.00	0.0	76.7	80.4	84.1	88.0
4.06	7.4	76.3	80.7	85.0	89.4
6.38	11.4	76.9	81.3	85.7	90.4
15.82	26.2	77.6	81.9	87.3	92.8
16.02	26.5	-	82.4	87.7	93.1
22.41	35.3	77.5	83.1	88.8	94.6
31.51	46.5	76.8	82.6	88.6	94.7
36.26	51.8	77.7	83.3	88.9	95.3
37.85	53.5	78.6	83.9	89.8	95.9
49.47	64.9	-	-	89.5	95.0
61.87	75.4	75.9	81.3	87.3	93.5
75.29	85.2	73.6	78.8	84.3	90.4
93.77	96.6	69.9	74.7	80.1	85.9
98.13	99.0	69.5	73.2	78.7	84.7
98.50	99.2	68.6	73.6	79.0	84.9
		-10°	-20°	-30°	-40°
4.06	7.4	93.7	-	-	-
6.38	11.4	95.3	-	-	-
15.82	26.2	98.2	103.7	-	-
16.02	26.5	98.4	-	-	-
22.41	35.3	100.6	106.7	113.3	-
31.51	46.5	101.2	108.0	115.4	124.7
36.26	51.8	102.3	109.9	117.0	125.0
37.85	53.5	102.6	109.6	116.9	125.0
49.47	64.9	101.7	109.0	117.1	126.5
61.87	75.4	100.1	107.7	115.9	125.3
75.29	85.2	104.5(?)	112.0(?)	122.0(?)	-
93.77	96.6	92.4	-	-	-
98.13	99.0	91.3	98.7	106.3	-
98.50	99.2	91.4	-	-	-

Mitchell and Wynne-Jones, 1956

mol%	ionization constant	mol%	ionization constant
	25°		
0	14.0	61.5	9.1
5.0	10.7	74.1	9.4
13.7	9.6	89.5	10.2
22.6	9.4	95.0	11.0
33.3	9.0	97.5	11.7
44.9	9.0	99.4	12.4
50.8	9.0		

Kubaschewski and Weber, 1950 (fig.)

mol%	Q mix	mol%	Q mix
20	140	60	270
40	250	80	170
50	280	100	0

Water + Heavy water (D_2O)

Combs, Googin and Smith, 1954

%	t	p	%	t	p
48.23	9.84	8.45	48.24	30.01	29.87
45.97	20.00	16.30	48.22	40.01	52.31
45.97	25.00	22.19	48.21	50.00	87.86
45.97	30.00	29.91			

Wynne-Jones, 1935

mol% (at b.t.) L	V
11.96	10.97
49.17	46.67

La Mer, Eichelberger and Urey, 1934

%	f.t.	%	f.t.
1.23	0.053	39.9	1.679
14.70	.632	39.5	1.670
19.10	.824	94.6	3.800

Dezelic, 1935

mol%	f.t.	mol%	f.t.
10	0.4	60	2.3
20	0.8	70	2.7
30	1.2	80	3.05
40	1.6	90	3.4
50	1.95	100	3.8

La Mer and Baker, 1934

mol%	f.t.	mol%	f.t.
1.29	0.053	82.82	3.207
15.39	.632	93.38	3.578
19.97	.824		
41.70	1.670		
41.58	1.679		
59.15	2.351		

Selwood and Frost, 1933

%	d
	20°
0	0.9982
31	1.0314
63.5	.0664
92	.0970

La Mer and Baker, 1934

mol%	d	mol%	d
	25°		
1.29	0.998442	59.15	1.06040
15.39	1.01346	82.82	.08598
19.97	.01836	93.38	.09746
41.70	.04105	100	.1047
41.58	.04150		

Lutere, 1934

mol%	d	mol%	d
	25°		
0.000	0.9971	0.617	1.0618
.164	1.0142	.817	.0831
.340	.0326	.970	.0992
.460	.0451	1.000	.1024

Jones and Ray, 1937

mol%	d	mol%	d
	25°		
0.59	0.997679	70.57	1.072725
22.57	1.021117	82.81	.085984
54.24	1.055114	97.59	.102032

Longsworth , 1937

mol%	d	mol%	d
	25°		
0.000	0.997055	61.023	1.06279
0.0175	0.997074	73.358	1.08570
20.142	1.018840	99.166	1.10376
40.243	1.040440	100.000	1.10466

Selwood and Frost, 1933

%	η
	20°
0	1087
31	1140
63.5	1270
92	1370

Selwood and Frost, 1933

%	σ
20°	
0	72.75
31	71.50
63.5	69.80
92	68.10

Jones and Ray, 1937

mol%	σ(relativ)
25°	
0.59	1.00000
22.57	0.99992
54.24	.99973
70.57	.99962
82.81	.99953
97.59	.99947

Selwood and Frost, 1933

%	n_D
20°	
0	1.33293
31	.33138
63.5	.32992
92	.32849

Selwood and Frost, 1933

%	χ
20°	
0	-0.72
92	-0.65

Doehlemann and Lange, 1935

mol%		Q dil.
initial	final	(by mole D_2O)
	15°	
98.75	1.40	-30.6
98.75	1.45	-30.3
	25°	
0.93	0.05	-0.11
0.93	.05	.23
1.39	.06	.39
1.58	.07	.49
1.74	.075	.61
2.05	.08	.56
2.70	.10	.83
2.70	.20	.77
3.02	.12	.90
3.10	.12	.77
3.68	.15	-1.10
5.08	.17	.63
7.07	.23	.84
13.02	.30	-3.68
22.92	.45	-7.06
32.40	.60	-10.50
46.20	.80	-14.90
55.60	1.40	-17.90
55.90	.40	-17.60
64.10	.20	-19.70
67.80	.0	-21.40
73.30	.40	-23.30
73.30	.40	-23.70
73.30	.30	-26.20
81.50	.30	-25.50
89.70	.30	-28.70
98.75	.20	-31.90
98.75	.10	-32.70
98.75	.06	-30.9
	35°	
98.75	1.50	-31.4
98.75	1.55	-31.7

Lutere, 1934

t	n H_α	D	Hg_{gr}	H_β	Hg_i
			0%		
20.0	1.33118	1.33300	1.33449	1.33712	1.34025
			45.9%		
-0.2	1.32986	1.33159	1.33301	1.33556	1.33857
+0.9	.32987	.33159	.33301	.33558	.33858
3.2	.32988	.33160	.33302	.33558	.33859
5.1	.32987	.33160	.33301	.33557	.33858
10.1	.32976	.33150	.33290	.33546	.33848
15.1	.32953	.33127	.33265	.33523	.33824
20.0	.32920	.33092	.33232	.33490	.33789
25.1	.32875	.33048	.33186	.33443	.33743
30.0	.32825	.32998	.33137	.33391	.33693
35.0	.32764	.32936	.33075	.33330	.33630
			97.7%		
0.1	1.32737	1.32889	1.32021	1.33265	1.33556
3.1	.32736	.32897	.32028	.33276	.33565
5.2	.32738	.32900	.32031	.33277	.33567
7.5	.32737	.32900	.32030	.33278	.33567
10.0	.32734	.32897	.32028	.33274	.33564
15.0	.32723	.32882	.33013	.33259	.33550
20.1	.32692	.32853	.32985	.33231	.33520
25.0	.32654	.32816	.32947	.33192	.33482
30.05	.32608	.32770	.32900	.33144	.33436
35.0	.32552	.32715	.32844	.33089	.33376
			100.0%		
20.0	1.32683	1.32844	1.32976	1.33221	1.33509

Water + Hydrogen sulfide (H_2S)

Selleck, Carmichael and Sage, 1952

t	P	t	P
	hydrate + L_1+V		
-0.40[a]	0.92	-0.40[a]	0.92
+4.44	1.54	+12.00	3.40
10.00	2.76	18.66	6.80
15.56	4.93	22.55	10.21
21.11	8.79	25.33	13.61
26.67	15.75	27.33	17.01
29.50[a]	22.10	28.89	20.42
		29.50	22.10

a = quadruple point : hydrate + ice +L+V

t	P	mol% V	L_1	L_2
29.50	22.10	99.71	3.23	99.70
38.95	27.22	99.58	3.35	99.10
58.60	40.83	99.16	3.69	97.27
74.11	54.44	98.54	4.02	95.54
87.00	68.05	97.58	4.35	94.02
98.42	85.06	95.52	4.79	93.25
100.17	88.87	94.23	4.88	94.23

P	mol% V	L_1	P	mol% V	L_1
	37.8°			71.1°	
6.80	98.94	0.82	6.80	94.93	0.50
10.21	99.25	1.23	10.21	96.43	0.76
13.61	99.40	1.65	13.61	97.26	1.02
17.01	99.49	2.07	17.01	97.71	1.28
20.42[b]	99.54	2.50	20.42	98.01	1.54
26.61[b]	99.60	3.33	27.22	98.37	2.06
			34.03	98.56	2.58
			40.83	98.65	3.10
			47.64	98.68	3.64
			51.07	98.69	3.95
	104.4°			137.8°	
13.61	90.46	0.77	13.61	73.75	0.57
27.22	94.77	1.56	27.22	85.89	1.27
40.83	95.97	2.30	40.83	89.84	1.91
54.44	96.47	3.01	54.44	91.55	2.50
68.05	96.64	3.71	68.05	92.48	3.08
85.06	96.65	4.63	85.06	93.07	3.82
102.08	96.51	5.77	102.08	93.30	4.63
119.09	96.30	6.90	119.09	93.27	5.50
136.10	96.02	8.23	136.10	93.03	6.47
153.11	95.68	9.73	153.11	92.63	7.50
170.12	95.31	11.45	170.12	92.13	8.60
187.14	94.91	13.46	187.14	91.59	9.78
204.15	94.51	15.86	204.15	91.04	11.06
238.17	93.71	-	238.15	91.04	-
272.20	92.88	-	272.20	88.70	-
306.22	92.03	-	306.22	87.50	-
340.25	91.15	-	340.25	86.30	-
	171.1°				
13.61	39.81	0.29	153.11	86.46	3.51
27.22	68.28	0.94	170.12	87.40	8.05
40.83	77.72	1.55	187.14	86.81	9.10
54.44	82.24	2.14	204.15	86.06	10.24
68.05	84.66	2.73	238.17	84.36	-
85.06	86.46	3.51	272.20	82.48	-
102.08	87.42	4.35	306.22	80.61	-
119.09	87.88	5.20	340.25	78.64	-
136.10	87.97	6.10			

Cailletet and Bordet, 1882

t	p dissoc.	t	p dissoc.
1.0	2.0	15.5	6.6
5.4	2.3	18.1	7.9
8.0	3.0	22.8	11.0
10.8	3.6	25.0	16.0
12.2	4.7		
14.0	5.4		

Water + Ammonia (NH_3)

Heterogeneous equilibria

Perman, 1901

%	p 61.3°	46.4°	34.4°	20°	0°
0	158	77	40	17	5
2.5	248	122	71	32	13
5.0	345	178	104	48	20
7.5	448	240	143	70	28
10.0	567	313	187	93	35
12.5	699	394	237	118	45
15.0	856	488	297	151	58
17.5	1035	597	369	190	75
20.0	1248	730	450	235	93
22.5	1500	879	549	291	117
25.0	1842	1050	672	360	145
27.5	-	1248	813	439	181
30.0	-	1478	970	535	220
32.5	-	1777	1154	656	264
35	-	-	1374	-	313

Perman, 1903

t	p 0%	2.5%	5.0%	7.5%	10.0%	12.5%	15.0%
0	4.5	13	20	27.5	45	35	57
2	5.5	13.5	20.5	28.5	47.5	36.5	60.5
4	6	14	21	30	51	39	66
6	7	15	22.5	32.5	56	43	72.5
8	8	16	24.5	36	62	48	80
10	9	17	27	40	69	54	89
12	10.5	18	30	44	77	60	99
14	12	20	33.5	50	85.5	67	110.5
16	13.5	22	37	56	95.5	75	123
18	15.5	25	42	62.5	106	84	136.5
20	17.5	28.5	47.5	70	118	93	151
22	20	32.5	53	77.5	131	103	167.5
24	22.5	36.5	59.5	85.5	145	114	185.5
26	25	41.5	66	95	160	126	204
28	28.5	46.5	74	104.5	176	139	223
30	31.5	51.5	83	115	193.5	153.5	245
		56.5					
32	35.5	62.5	92	127	212.5	168.5	267.5
34	40	69	102	140	233.5	185	292
36	44.5	76	112	153.5	255	202	318
38	49.5	83.5	122.5	167.5	278.5	221	347.5
40	55	91	134.5	183	303.5	241	377.5
42	61.5	100	147.5	199	330	263	410
44	68	110	161	216.5	358	286	444
46	75.5	120	175.5	236	388	310	481
48	83.5	132	192	257.5	420	336	521.5
50	92.5	146	210	281	454	363.5	564
52	102	161	230	306	491.5	395	609
54	112.5	177	252	332	530.5	427.5	656
56	123.5	194.5	275	360.5	572	461.5	706
58	136	213.5	300	391	617.5	498.5	759
60	149.5	239	327	425	666	539	816.5
62	163.5	255.5	355	460	717	582	878.5

t	p 17.5%	20.0%	22.5%	25.0%	27.5%	30.0%
0	75	93	117	144.5	181	220
2	80	101	126.5	158.5	198	242
4	86.5	110	137.5	174	216	266
6	94.5	120	150	190	236	291
8	104.5	131.5	164.5	207	257.5	318
10	115	144	180.5	226.5	280	346
12	127	159	199	248.5	306	377.5
14	140.5	176	219	273	335.5	412
16	156	194.5	241	299.5	367	450
18	173	215.5	265	329.5	402	492
20	191	237	291	360	440	537
22	210	260.5	319	395.5	482	586
24	231.5	286	349	432.5	527	639
26	254.5	313	382	472	575.5	695.5
28	279	342	417	515.5	626	754
30	305.5	373	455.5	561	680	817
32	333.5	407.5	497	609.5	738	884
34	363.5	444.5	540	660	800	954
36	395.5	483.5	587	714	864.5	1027
38	429.5	525.5	637	771	934	1105
40	465.5	569.5	690	830.5	1007	1189
42	504	617	745	894	1081	1276
44	545	666	804	962	1157	1367
46	588	719.5	866.5	1034	1235	1460
48	635.5	776	933	1111	-	-
50	687.5	834.5	1005	1195	-	-
52	737.5	897	1080	-	-	-
54	792.5	963	1159	-	-	-
56	852.5	1033	1242	-	-	-
58	917	1109	1333	-	-	-
60	985	1191	1432	-	-	-
62	1061	1279	-	-	-	-

t	p_1 0%	2.5%	5.0%	7.5%	10.0%
0	4.5	4.5	4	4	4
2	5.5	5	5	5	4.5
4	6	6	6	5.5	5
6	7	7	7	6.5	6
8	8	8	8	7.5	7
10	9	9	9	8.5	8
12	10.5	10.5	10	9.5	9
14	12	12	11.5	11	10.5
16	13.5	13.5	13	12	12
18	15.5	15	14.5	14	13.5
20	17.5	17	16.5	15.5	15
22	20	19	18.5	17.5	17
24	22.5	21.5	21	20	19.5
26	25	24	23.5	22	21.5
28	28.5	27	26.5	25	24.5
30	31.5	30.5	30	28.5	28
32	35.5	34.5	34	32.5	31.5
34	40	38.5	38	36.5	35.5
36	44.5	43	42.5	41	39.5
38	49.5	48	47.5	46	44.5
40	55	54	53	51.5	49.5
42	61.5	60	58.5	57	55
44	68	66.5	65	63.5	61.5
46	75.5	73.5	71.5	70	68
48	83.5	81.5	79	77.5	75.5
50	92.5	90	87.5	85.5	82.5
52	102	99	96.5	94	91
54	112.5	109	107	103.5	100.5
56	123.5	120	118	114.5	111
58	136	132.5	130	126.5	122
60	149.5	146.5	143	139	134

	12.5%	15%	17.5%	20.0%	22.5%
0	3.5	3.5	3.5	3	3
2	4	4	4	3.5	3.5
4	4.5	4.5	4.5	4	4
6	5.5	5.5	5.5	4.5	4.5
8	6.5	6.5	6.5	5.5	5
10	7.5	7.5	7.5	6.5	6
12	8.5	8.5	8.5	7.5	7
14	10	9.5	9.5	8.5	8
16	11.5	11	11	10	9
18	13	12.5	12.5	11.5	10
20	14.5	14	14	13	11.5
22	16.5	16	16	14.5	13
24	18.5	18	18	16.5	14.5
26	21	20.5	20	18.5	16.5
28	23.5	23	22	20.5	18.5
30	26.5	25.5	24.5	23	20.5
32	30	28.5	27.5	26	23
34	33.5	32	31	29	26
36	37.5	36	34.5	32	29
38	42.5	40.5	38	35.5	32
40	47.5	45	42.5	39.5	36
42	53	50.5	47	43.5	-
44	59	56	-	-	
46	65	62		-	-
48	72	68.5		-	
50	79.5	75.5		-	
52	87.5	83	-		
54	96		-	-	
56	106	-	-		-
58	117	-	-	-	
60	128.5	-		-	-

	15.0%	17.5%	20.0%	22.5%
0	53.5	69	87.5	111
2	58.5	76	97	123
4	64.5	83.5	107	135.5
6	71	92	118	149
8	78	102	130	163.5
10	86.5	112	143	179.5
12	95.5	123.5	157.5	196.5
14	105	136	173	215.5
16	115.5	150	190	236
18	127.5	165	208.5	258.5
20	141	181	228.5	283
22	155	198	250	309
24	170	217	273	337
26	186	236.5	298	368
28	202.5	258	324.5	403
30	220	281	353	441.5
32	241	306	382.5	-
34	263	334	415	-
36	286.5	363	451	-
38	311	395	491	-
40	336	429	535	-
42	363.5	466	-	-
44	392.5	-	-	-
46	422.5	-	-	-
48	455.5	-	-	-
50	491.5	-	-	-

t	p_2				
	2.5%	5.0%	7.5%	10.0%	12.5%
0	6	13	20	28.5	40
2	6.5	14.5	22	31.5	43.5
4	7	15	24	34.5	48
6	7.5	16.5	26.5	38	53
8	8	18	29.5	42.5	58.5
10	9	20	32.5	47.5	65
12	10	22	36	52	71.5
14	11	24.5	40	58	79
16	12:5	27	44.5	64	87.5
18	14	30	49	71	97
20	15.5	33.5	54	78.5	107
22	17	37	59.5	86.5	117
24	18.5	40.5	65.5	95	128
26	20.5	44.5	72	104	141
28	22.5	49	78.5	114	154.5
30	25	54	86	124.5	169
32	27.5	58.5	94	136	184.5
34	30	64	103	149	201
36	32.5	70	112.5	162	219
38	35	76.5	122.5	176	238
40	38	83.5	134	191	258.5
42	42	91	145.5	208	280
44	46	99	158	225.5	302.5
46	50	107.5	172	244	327
48	54.5	116.5	186	263	352
50	59	126	200.5	284.5	380
52	64	136	217	306	-
54	69.5	147	233.5	329	-
56	75	158.5	251	354	-
58	80	170.5	270	380	-
60	85.5	183	291	406.5	-

Mollier, 1908

p	t	p	t
	11.80 %		
914	70.47	2381	100.25
1278	80.17	3189	110.65
1775	90.53	4098	120.12
	23.39 %		
772	41.40	2844	80.09
895	44.91	3870	90.84
1507	59.89	4935	99.98
2116	70.45	6509	110.97
	33.73 %		
1063	30.28	4028	70.78
2157	50.31	5244	80.40
2975	60.58	6787	90.41
	41.55 %		
753	8.14	2468	39.80
1198	19.68	3435	50.47
1764	29.98	4670	60.93
1753	30.01	6372	72.36
	50.36 %		
976	1.38	4074	41.31
1655	14.78	5301	50.13
2867	30.30	7000	60.55
2873	30.34		

Vrevskii, 1910

t	Dp_2/p_2 (for 10°)						
	2.5%	5.0%	7.5%	10.0%	12.5%	15.5%	17.5%
20.3	1.61	1.61	1.61	1.59	1.58	1.56	1.55
20.4	1.52	1.51	1.56	1.53	1.53	1.53	1.53
40.5	-	1.51	1.50	1.44	1.47	1.46	-
50.6	1.45	1.45	1.45	1.43	-	-	-

Postma, 1914 and 1920

t	p	t	p
	100%		
-77.6	46	-54.7	231
-76.2	52	-52.3	267
-73.9	62	-49.9	309
-71.5	74	-47.5	355
-69.1	88	-45.1	407
-66.7	104	-42.7	465
-64.3	124	-40.3	531
-61.9	145	-38.9	572
-59.5	170	-35.5	683
-57.1	198	-33.1	771

t	p		
	88.0mol%	84.1mol%	77.8mol%
-76.6	43	41	-
-73.2	56	54	46
-69.8	73	68	59
-66.4	93	87.5	76
-62.95	117	110	97
-59.5	147	139	122
-56.1	183	173	152
-52.7	226	214	188
-49.3	278	263	231
-45.8	339	319	282
-42.4	411	389	342
-38.9	495	-	413
-35.5	591	558	-
-32.0	703	-	589
-29.3	803	-	-
-28.6	-	787	-
-26.85	-	-	758
	74.6mol%	69.5mol%	66.3mol%
-76.6	32	-	-
-75.9	-	29	-
-70.1	-	45	-
-69.8	-	-	39
-66.4	70	59	50
-62.95	-	75	64
-59.5	112	95	82
-56.1	-	-	102
-55.4	146	124	-
-52.7	173	-	128
-52.0	-	154	-
-49.3	214	-	-
-49.25	-	182	159
-45.8	262	223	196
-42.4	318	272	240
-38.9	383	330	290.5
-35.5	460	396	351
-28.6	651	-	-
-26.85	-	611	-
-25.1	-	-	595
-24.8	780	-	-
-22.7	-	747	-
-19.9	-	-	760

	62.7mol%	54.7mol%	51.5mol%
-72.8	-	14	-
-66.4	41	23	-
-62.95	53	-	23
-59.5	68	39	-
-56.1	86	-	39
-52.7	106	63	-
-49.25	133	-	63
-45.8	164	101	-
-42.4	201	125	99
-38.9	247	154	122
-35.5	298	189	151
-32.0	360	229	184.5
-28.6	429	278	224
-25.1	-	334	270
-21.7	-	398	544
-18.2	-	-	387
-14.7	-	560	-
-11.25	-	-	544
-7.8	770	-	-
-4.3	-	746	-

t	p	t	p
39.7mol%		35.9mol%	
-59.5	10.5	-45.8	20
-49.25	22.5	-35.5	42
-38.9	47	-25.1	79
-28.6	90	-21.7	98
-24.4	114	-18.2	119
-18.2	164	-11.25	175
-11.25	237	-4.3	251
-4.3	335	+2.7	351
-0.8	396	+7.2	434
+7.2	578	+13.2	566
+13.2	741		
32.7mol%		25.6mol%	
-62.95	4	-51.65	5
-52.7	9	-42.4	10
-42.4	19	-32.0	20
-32.0	39	-21.7	39
-25.1	61	-11.25	72
-18.2	92	-6.0	96
-14.7	111.5	-2.5	116
-7.8	163	+6.2	182
-0.8	233	+11.4	235
+6.2	327		
+9.7	385		

mol%	p						
	-70°	-65°	-55°	-45°	-35°	-30°	-25°
100.0	82.5	117.5	226	409.5	699.5	-	-
88.0	72	102	196	355	606	774	-
84.1	67	96	185	334	573	736	-
77.8	58	84	162	295	505	650	-
74.6	53	77	149	274	472	610	774
69.5	45.5	65	127	233	407	525	668
66.3	38	55	110	205	360	469	597
62.7	31	45.5	92	172.5	305.5	399	-
54.7	17	25	54	106	194	257	335.5
51.5	13	19.5	42	83	155	207	271.5
38.7	-	8.5	14	30.5	61	83	110
35.9	-	-	11	21.5	43.5	59	79.5
32.7	-	4	8	16	31.5	45	61.5
25.6	-	-	-	9	16.5	23	31

t	p	t	p
	NH_3 cryst.		
-93.5	8.9	-83.3	26.0
-90.1	12.7	-81.6	31.1
-86.7	18.3	-78.9	40.5
-86.0	19.8		
	L+V+NH_3 cryst.		
-93.1	10.9	-84.0	25.1
-91.8	11.9	-82.8	29.0
-90.2	13.6	-81.8	31.1
-87.7	18.7	-80.7	35.5
-86.4	21.6	-78.6	42.5
-85.4	23.1		
	L+V+(1+2)		
-82.0	10.8	-81.3	21.4
-81.3	12.6	-82.6	19.9
-79.6	15.6	-83.5	20.2
-78.9	19.6	-85.2	17.4
-78.8	21.2	-87.4	16.0
-79.1	23.5	-88.1	15.5
-80.3	22.5	-89.9	12.9
-80.6	22.2	-90.3	12.0
	L+V+(1+1)		
-79.3	4.7	-82.8	6.0
-81.6	7.1	-85.5	5.5
	L+V+ ice		
-6.3	11.5	-24.7	13.0
-10.5	13.5	-28.2	11.8
-10.8	13.7	-28.7	11.6
-13.6	14.1	-42.0	7.5
-15.7	14.3	-44.4	6.3
-17.8	14.4	-45.4	6.2
-19.2	14.2	-50.3	5.0
-20.6	13.9	-57.8	3.1
-23.0	13.4		

t	mol%	t	mol%
	L+V+C(interpolation)		
-5.0	4.6	-35.0	20.3
-10.0	8.1	-45.0	23.3
-15.0	11.2	-55.0	25.6
-17.0	12.3	-65.0	27.9
-20.0	14.0	-70.0	28.7
-25.0	16.4		

t	P	t	P
	100%		
123.5	95.4	121.6	92.5
123.7	95.6	123.2	95.2
126.8	99.5	124.4	96.9
128.5	103.9	126.1	99.8
129.7	106.2	127.3	101.8
130.9	108.2	128.5	104.0
131.8	110.0	129.9	106.6
132.4	111.4	130.8	108.2
	crit.t.	132.1	110.6
		132.3	111.2
			crit.t.

93.18mol%		86.30mol%	
109.2	66.2	147.7	107.6
114.7	72.5	151.5	113.2
120.4	80.1	157.1	121.7
124.8	85.8	163.7	131.7
129.9	93.3	169.2	139.8
135.4	101.4	174.3	146.1
149.4	123.9	177.5	149.4
148.0	121.3	180.0	151.6
157.4	133.6	182.7	153.7
159.9	99.3	186.6	155.8
165.9	109.9	190.5	157.2
167.5	115.9	195.5	154.8
171.1	131.0	197.1	153.1
165.7	136.7	191.9	109.9
162.8	136.9	189.7	98.8
	74.1mol%		
216.4	175.3 crit.t.	228.6	178.5
201.0	161.7	231.6	176.1
207.0	167.8	213.6	139.9
222.6	178.5	235.0	158.2

mol%	b.t.	mol%	b.t.
760mm		380mm	
100	-33.35	100	-46.3
94.2	31.9	67.6	30.4
88.9	30.5	61.8	35.0
81.5	28.3	58.6	26.7
76.0	26.1	54.8	22.9
68.7	22.1	51.2	18.4
55.7	9.3	48.0	14.0
50.8	-3.3	45.5	10.2
46.0	+3.6	42.4	-5.5
43.15	9.5	36.2	+4.1
38.1	17.0		
35.5	21.1		
22.8	43.2		
17.9	53.2		
12.7	64.5		

Foote, 1921

p	%	p	%	p	%
10°		20°		30°	
410	32.66	762	34.69	776	29.45
568	36.96	960	39.04	923	31.76
772	40.96	1181	41.10	1106	34.26
964	44.34	1377	43.52	1298	36.59
1182	47.69	1542	45.42	1536	39.12
1388	50.58				
1547	52.69				

Neuhausen and Patrick, 1921

p_2	p_1	p_2	p_1
0°		40°	
1062	1.04	1120	32.1
1100	1.03	1389	29.8
1334	0.84	1579	26.5
1868	0.51	1582	26.4
2078	0.35	1926	22.4
		2132	20.8
20°		2381	19.3
		2546	18.9
1146	8.6	2969	18.3
1288	8.3	3053	18.3
1445	7.4	3395	17.8
2113	5.9	3957	17.4
2112	6.0	3928	17.4
2647	4.5		
2624	4.6		
3563	3.7		
3725	3.4		
3942	3.1		

mol%	p_2	p_1	mol%	p_2	p_1
	0°			20°	
51.676	915	1.25	34.886	728	9.4
52.382	944	1.19	36.508	798	9.25
54.735	1140	0.97	42.077	1140	8.6
61.206	1409	.77	42.392	1165	8.55
62.765	1499	.708	43.086	1226	8.4
65.076	1684	.61	43.731	1281	8.3
65.711	1732	.545	48.175	1677	7.05
66.621	1865	.46	49.941	1938	6.33
			53.940	2655	5.1
			55.970	3076	4.45
			56.923	3277	4.15
	40°			40°	
25.011	752	36.5	39.02	2180	20.5
25.366	774	36.2	41.133	2460	19.0
30.690	1134	32.1	42.925	2832	18.42
32.686	1335	29.5	44.624	3226	18.0
33.134	1376	29.10	44.557	3214	18.0
36.326	1787	23.9	46.335	3640	17.6

Maass and Meunié, 1926

t	p_1	p_2	t	p_1	p_2
	49.80%			48.80%	
98.2	306.9	323.1	98.2	355.0	359.4
107.8	314.8	331.5	107.8	364.1	368.8
125.9	330.0	347.3	125.9	382.0	386.2
148.5	348.9	366.8	138.5	403.6	407.7
180.5	375.4	394.1			

Mittasch, Kuss and Schlieter, 1926

t	p_2	t	p_2
20.70%		29.9%	
0.3	101	0.3	216
0.3	102	6.0	299.5
5.8	142	11.3	354
10.7	172.5	21.3	577
20.45	272.5	30.25	815
21.2	274.5	30.65	836.5
30.1	389	39.6	1172
30.75	419	39.8	1230
39.9	616	49.3	1629
40.0	614	59.7	2296
50.45	918.5		
60.2	1285.5	42.65%	
40.75%		0.25	608
		8.20	876
0.5	525.5	11.95	1023
6.3	684	21.90	1466
11.0	823	30.50	2055
21.55	1195	30.55	2069
30.85	1701		
49.05%		50.83%	
0.28	867	0.9	1001
0.44	880	7.1	1330
7.05	1160	10.65	1566
11.45	1404		
20.30	2002		
30.55	2854		
31.0	2887		

Rayleigh, 1902 (fig.)

% (at b.t.)		% (at b.t.)	
V	L	V	L
0	0	80	13
20	3	90	20
40	5.5	95	40
60	8.5	100	100

Vrevskii, 1910

mol% (L)	mol%(V) 40°	mol%(V) 0°
4	53.3	64.6
6	65.5	73.2
8	72.9	78.9
10	78.1	83.3
12	82.2	87.0
14	85.4	90.3
16	88.3	92.9
18	90.5	94.9

Wucherer, 1932

Equilibrium L - V (see author)

Clifford and Hunter, 1933

P	% L	% V	P	% L	% V
	97°			127°	
0.899	0	0	2.435	0	0
2.4	9.3	63.3	4.37	6.43	45.3
3.8	16.0	78.3	5.62	9.5	59
6.76	25.5	89.76	7.31	-	68.5
7.04	25.9	89.6	12.44	-	79.1
			13.6	25.0	82.8
	107°			137°	
1.277	0	0			
3.27	10.0	61.0	3.274	0	0
5.12	16.0	75.3	5.7	6.5	42.0
8.55	25.0	86.4	9.06	-	66.2
			14.90	-	78.5
	117°		-	25.0	80.2
				147°	
1.78	0	0			
3.35	6.5	-	4.332	0	0
4.35	9.5	61.5	7.3	6.5	40.6
5.8	14.7	73.2	9.3	9.5	50.2
10.63	-		11.84	13.6	62.4
			16.3	19.5	75.0

Raoult, 1874

X	b.t.	X	b.t.
	760 mm		
45.50	28	66.00	12
49.50	24	72.75	8
54.25	20	80.25	4
59.75	16	99.00	0

X = g NH_3 in 100 cc H_2O

Mallet, 1897

b.t.	%
743 - 744.5	
-10	52.72
-20	63.87
-30	73.55
-40	74.65

Franklin and Kraus, 1898

%	D b.t.	%	D b.t.
83.57	3.852	94.16	1.116
84.09	3.966	94.60	.078
85.77	3.447	94.94	.011
89.19	2.300	95.00	.009
89.24	2.308	95.57	0.886
89.59	2.199	96.12	.736
90.48	1.987	96.90	.613
91.78	.663	97.33	.529
92.13	.631	97.34	.497
92.15	.604	98.20	.356
92.47	.554	98.52	.254
93.03	.409	98.71	.256
93.67	.272	99.08	.174
93.88	.210		

D b.t.= sol. - NH_3

Postma, 1914 and 1920

mol%	b.t. 50mm	100mm	150mm	250mm	380mm	760mm
100.0	-76.6	-67.2	-61.4	-53.35	-46.3	-33.4
88.0	74.6	65.3	59.15	51.1	43.8	30.4
84.1	74.1	64.35	58.3	50.1	42.8	29.3
77.8	72.0	62.5	56.3	47.9	40.5	26.8
74.6	70.85	61.1	54.9	46.6	39.1	25.4
69.5	68.6	58.7	52.4	43.8	36.3	22.3
66.3	66.4	56.4	50.2	41.7	34.0	19.9
62.7	63.6	53.6	47.25	38.6	30.9	8.1
54.7	55.95	45.95	39.3	30.5	22.6	-3.9
51.5	52.5	42.1	35.6	26.6	18.6	-
39.7	38.0	26.7	19.65	10.2	-1.6	-
35.9	32.7	21.3	14.0	-4.4	+4.4	-
32.7	28.35	16.6	-9.25	+0.65	9.4	-
25.6	-17.25	-5.3	+2.4	+12.75	-	-

Carius, 1856

t	vol. gas/1cc	t	vol. gas/1cc
	743 - 744.5 mm		
0.53	1034.185	14.41	736.579
4.60	920.791	19.71	655.321
9.54	822.286	25.01	585.727

Roscoe and Dittmar, 1860

Absorption

p_2	%	p_2	%
	room t.		
18	6.89	904	48.85
97	21.51	912	49.85
241	31.65	1261	56.36
268	32.34	1264	55.91
452	39.39	1266	55.52
707	45.80	1881	56.33
712	46.10	1960	68.09
760	46.72	1963	68.12

t	%	t	%
	760 mm		
0	46.67	30	28.72
2	45.44	32	27.64
4	44.19	34	26.58
6	42.89	36	25.54
8	41.62	38	24.47
10	40.44	40	23.49
12	39.21	42	22.48
14	37.97	44	21.62
16	36.79	46	20.57
18	35.65	48	19.61
20	34.47	50	18.63
22	33.29	52	17.62
24	32.15	54	16.67
26	30.98	56	15.58
28	29.87		

Sims, 1862

Absorption

p	%	t	%	t	%
0°			760 mm		
20.7	7.75	0	47.34	52	21.53
749.6	47.03	2	46.04	54	20.95
757.7	47.37	4	44.72	56	20.38
20°		6	43.34	58	19.80
		8	42.00	60	19.22
45.5	9.09	10	40.62	62	18.63
206.1	19.09	12	39.17	64	18.03
735.4	33.68	14	37.93	66	17.42
1525.0	44.78	16	36.63	68	16.81
2076.0	50.45	18	35.31	70	16.25
40°		20	34.13	72	15.58
		22	32.89	74	15.11
75.8	4.76	24	31.83	76	14.53
184.3	10.07	26	30.84	78	13.94
701.1	24.35	28	29.87	80	13.34
1599.0	33.43	30	28.98	82	12.74
2129.0	37.46	32	28.22	84	12.12
100°		34	27.43	86	11.50
		36	26.63	88	10.87
688.4	6.28	38	25.93	90	10.23
1078.0	9.42	40	24.58	92	9.58
1419.0	11.89	42	23.96	94	8.97
		44	25.32	96	8.26
		46	25.26	98	7.58
		48	22.72	100	6.89
		50	22.12		

Isambert, 1887

cc NH_3 (V)/1cc H_2O	t	π
330	21.5	37.6
"	22.5	38.5
"	22.5	38.2
"	21.0	38.1
140	20.4	38.7
"	21.0	38.7
"	22.2	39.2

Almen, 1898

%	a . 10^6
15°	
0.45	1101
8.33	1084
20.49	1068
28.33	1061
34.95	1054

a = Dv/G, where G is the absorbed volume of gaseous NH_3

Freezing curve .

Guthrie, 1878

%	f.t.	%	f.t.
1	-0.8	10	-12.8
3	-3.2	15	-21.4
5	-5.6	20	-43.4

Nichols and Wheeler, 1881

%	f.t.	absorption t.
0	0.00	100.00
2.12	-5.40	93.20
5.61	-10.60	83.10
7.96	-14.10	76.40
16.19	-	59.00
29.00	-	39.80

Pickering, 1893

%	f.t.	%	f.t.	%	f.t.
1.55	-1.35	1.93	-2.1	1.23	-1.30
2.96	2.85	2.69	2.95	1.89	1.90
4.52	4.78	3.62	4.35	2.64	2.85
6.31	7.22	4.46	5.45	3.38	3.80
8.15	10.26	5.37	6.57	4.23	4.83
9.90	12.29	6.42	8.15	5.25	6.20
11.80	15.13	7.63	9.70	6.31	7.55
13.58	17.89	8.97	11.77	7.40	9.10
15.32	21.34	10.54	13.85	8.52	10.75
17.05	25.34	12.53	17.30	9.37	12.30
18.56	28.66	13.85	19.68	10.56	14.10
20.13	33.53	15.14	22.30	12.11	16.75
21.59	38.20	16.34	24.70	13.45	18.95
22.94	42.40	17.52	26.95	14.86	21.90
24.35	47.00	18.63	29.45	16.30	24.68
25.91	55.00	19.67	32.05	17.83	27.80
28.30	-66.70	20.68	35.55	19.38	32.05
		21.73	38.60	20.77	35.80
		22.78	42.70	22.08	39.45
		23.78	45.90	23.25	43.55
		24.86	49.20	24.27	47.40
		25.86	54.60	25.19	51.60
		26.82	58.00	26.05	54.60
		27.77	62.90	26.98	60.40
		28.59	66.60	28.14	-67.80
three series		29.36	-73.20		

Rupert, 1910

%	f.t.	%	f.t.	%	f.t.
0.6	-0.6	28.5	-75.0	64.0	-79.4
0.7	0.5	28.7	77.8	64.6	79.0
1.2	1.0	30.2	87.9	65.1	79.0
2.1	2.2	31.1	96.0	66.9	79.1
2.2	2.2	31.7	100.1	67.4	78.6
2.9	3.7	32.9	102.5	68.4	79.4
3.8	5.0	34.5	120.0	69.3	80.2
4.0	4.6	35.5	101.5	70.1	81.0
4.9	5.9	38.0	94.5	71.9	82.0
5.1	7.1	39.0	88.8	74.3	84.6
5.5	7.0	41.4	84.5	76.9	88.8
5.7	7.3	42.4	84.2	78.6	92.0
6.5	8.5	43.7	83.9	80.3	92.9
6.7	8.5	45.9	82.0	80.8	93.4
9.9	13.4	47.1	80.0	81.3	92.8
11.1	15.5	47.7	79.6	82.3	91.9
12.6	19.0	49.8	79.3	82.5	92.4
13.2	20.2	51.1	79.3	82.8	90.4
14.7	22.9	52.0	80.0	83.7	90.6
16.4	25.8	52.2	80.6	84.9	89.6
18.3	32.6	53.1	81.8	85.2	88.8
19.6	35.3	53.9	82.8	86.1	87.1
21.4	41.9	55.3	84.2	88.2	85.3
23.0	46.8	56.7	86.2	90.0	84.2
24.5	52.6	58.1	84.9	92.4	82.9
26.1	60.7	58.9	83.6	93.6	81.7
27.6	-68.5	60.9	81.2	94.8	81.0
		62.2	-79.5	95.7	80.3
				97.4	79.4
				98.9	78.6
				100.0	-78.0

Postma, 1914 and 1920

mol %	f.t.	E	mol %	f.t.
100	-77.6	-	50.1	-79.1
94.7	-80.9	-	49.3	-79.1
90.4	-83.7	-	43.9	-83.0
86.5	-87.2	-	42.2	-86.0
81.55	-92.4	-92.5	40.6	-88.2
78.45	-92.6	-	39.8	-90.7
73.5	-88.7	-92.5	39.1	-91.7
71.1	-82.2	-92.6	35.75	-97.1
69.9	-80.3	-	34.5	-100.3E
66.7	-79.7	-	34.0	-96.7
65.8	-78.8	(1+2)	32.6	-89.2
64.6	-78.9	-	29.7	-74.2
62.0	-79.2	-	28.7	-68.8
61.3	-81.0	-	27.6	-63.7
60.7	-81.7	-86.0	26.55	-59.4
60.3	-82.3	"	23.0	-43.5
59.0	-82.9	"	20.2	-34.9
57.0	-85.2	-85.8	17.4	-28.6
53.0	-84.1	"	4.46	- 4.8
50.2	-80.2	"	0	0
50.1	-79.1	"	(1+1)	

Maass and Hatcher, 1922

%	f.t.	%	f.t.
	(x+1)		
0	- 1.72	31.20	+25
3.41	-13	33.20	25
4.31	-18	48.60	9
18.05	+ 5	49.70	1.5
19.60	8	50.70	0
21.10	15	51.80	- 6
23.90	20	52.80	- 9.5
25.20	22	68.7	below -78
26.40	24	61.3	" "
27.70	25	59.5	" -53.5
28.80	25	56.7	" -32
31.10	25		

Elliott, 1924

mol %	f.t.	mol %	f.t.
37.0	-97.00	79.1	-88.88
47.8	-80.15	79.7	-90.20
50.8	-79.12	80.0	-90.56
53.3	-80.03	80.1	-94.33
55.8	-84.54	80.6	-92.10
57.3	-88.39	80.9	-92.83
57.9	-87.25	81.8	-91.86
58.8	-85.47	83.5	-90.07
60.0	-85.03	84.6	-89.37
61.0	-83.12	86.6	-87.05
64.3	-79.39	89.9	-84.13
66.2	-78.88	91.0	-83.45
68.6	-79.10	94.5	-81.01
70.4	-80.03	97.3	-79.34
74.2	-82.05	98.5	-78.58
75.0	-83.56	99.4	-78.11
76.4	-85.54	100	-77.73
77.7	-86.98	(1+1)	(1+2)

Mironov, 1955

%	f.t.	E	%	f.t.	E
100	-76.5	-	56.3	-85.1	-85.6
96.6	78.5	91.6	50.1	77.0(?)	86.7
85.6	85.5	91.0	50.1	99.0	-
79.0	90.3	92.4	48.6	77.2	77.0
71.8	79.7	90.6	44.5	77.6	101.3
68.7	77.7	92.1	36.1	90.3	-101.3
65.4	77.3	77.5	32.0	96.7	-
64.9	77.5	85.0	24.4	51.4	-
59.0	-81.3	-85.3	15.1	-20.5	-
			0	0	0
(1+1)	-77.0°		(1+2)	-77.4°	

Properties of phases . Density .

Carius, 1856

%	d	t	d
14°		sat.sol.	
0.882	0.9953	0.53	0.8531
3.345	.9863	4.60	.8670
4.929	.9792	9.54	.8767
6.905	.9713	14.41	.8858
10.275	.9598	19.71	.8923
14.430	.9437	25.01	.8991
18.718	.9277		
23.857	.9100		
30.270	.8970		

Wadhsmuth, 1876

%	d	%	d
12°			
0	0.9995	18.29	0.930
2.10	.990	18.90	.928
2.58	.988	19.51	.926
3.06	.986	20.22	.924
3.55	.984	20.73	.922
4.04	.982	21.34	.920
4.53	.980	21.97	.918
5.02	.978	22.60	.916
5.52	.976	23.28	.914
6.02	.974	23.86	.912
6.52	.972	24.49	.910
7.02	.970	25.13	.908
7.55	.968	25.77	.906
8.08	.966	26.41	.904
8.62	.964	27.07	.902
9.16	.962	27.73	.900
9.70	.960	28.41	.898
10.24	.958	29.09	.896
10.78	.956	29.78	.894
11.32	.954	30.47	.892
11.87	.952	31.16	.890
12.42	.950	31.87	.888
12.99	.948	32.58	.886
13.56	.946	33.29	.884
14.13	.944	34.00	.882
14.71	.942	34.72	.880
15.29	.940	35.46	.878
15.89	.938	36.20	.876
16.49	.936	36.94	.874
17.09	.934	37.69	.872
17.69	.932	38.44	.870

Nichols and Wheeler, 1881

t	d	t	d
29%			
20	0.8973	2	0.9080
18	.8986	0	.9088
16	.8998	-2	.9100
14	.9009	-4	.9111
12	.9022	-6	.9122
10	.9035	-8	.9131
8	.9043	-10	.9142
6	.9056	-12	.9151
4	.9068		
16.19%			
20	0.9350	0	0.9427
18	.9360	-2	.9433
16	.9369	-4	.9436
14	.9373	-6	.9444
12	.9386	-8	.9450
10	.9393	-10	.9455
8	.9400	-12	.9459
6	.9406	-14	.9463
4	.9413	-16	.9467
2	.9420		
7.96%			
20	0.9657	2	0.9702
18	.9663	0	.9705
16	.9670	-2	.9707
14	.9676	-4	.9709
12	.9682	-6	.9710
10	.9687	-8	.9711
8	.9691	-10	.9711
6	.9696	-12	.9711
4	.9699	-14	.9709

%	d	%	d
14°			
2.12	0.9913	16.19	0.9373
5.61	0.9766	29.00	0.9009
7.96	0.9676		

Grüneberg, 1889

%	d	%	d
15°			
0	0.999	16.90	0.934
1.05	.994	18.35	.929
2.15	.989	19.80	.924
3.30	.984	21.30	.919
4.50	.979	22.85	.914
5.75	.974	24.40	.909
7.05	.969	26.00	.904
8.40	.964	27.70	.899
9.80	.959	29.50	.894
11.20	.954	31.40	.889
12.60	.949	33.40	.884
14.00	.944	35.50	.879
15.45	.939		

Lunge and Wiernik, 1889

%	d	$\tau.10^5$	%	d	$\tau\tau.10^5$
		15°			
0.00	0.999	18	15.63	0.939	39
0.45	.997	18	16.22	.937	40
0.91	.995	19	16.82	.935	41
1.37	.993	19	17.42	.933	41
1.84	.991	20	18.03	.931	42
2.31	.989	20	18.64	.929	42
2.80	.987	21	19.25	.927	43
3.30	.985	21	19.87	.925	44
3.80	.983	22	20.49	.923	45
4.30	.981	22	21.12	.921	46
4.80	.979	23	21.75	.919	47
5.30	.977	23	22.39	.917	48
5.80	.975	24	23.03	.915	49
6.30	.973	24	23.68	.913	50
6.80	.971	25	24.33	.911	51
7.31	.969	25	24.99	.909	52
7.82	.967	26	25.65	.907	53
8.33	.965	26	26.31	.905	54
8.84	.963	27	26.98	.903	55
9.35	.961	28	27.65	.901	56
9.91	.959	29	28.33	.899	57
10.47	.957	30	29.01	.897	58
11.03	.955	31	29.69	.895	59
11.60	.953	32	30.37	.893	60
12.17	.951	33	31.05	.891	60
12.74	.949	34	31.75	.889	61
13.31	.947	35	32.50	.887	62
13.88	.945	36	33.25	.885	63
14.46	.943	37	34.10	.883	64
15.04	.941	38	34.95	.881	65

Blanchard, 1904

M	d	M	d
	25°		
0	0.9971	5.93	0.9559
1.30	.9871=	6.60	.9515
2.66	.9768	8.39	.9393
4.16	.9660		

Zecchini, 1905

%	t	d
0	20	0.99823
5.4610	17.8	.97554
10.5440	17.2	.95585
17.1920	24.3	.93332
18.8400	19	.92493
21.8020	21.4	.91405

Loewenfeld, 1905

%	d	%	d
	15°		
0	0.9993	15.4	0.9404
4.3	.9820	20.9	.9225
9.7	.9603	25	.9110

Ferguson, 1905

%	d	%	d
	15.6°		
0	0.99904	21.78	0.91965
5.06	.97788	27.12	.90336
10.12	.95862	33.10	.88585
15.87	.93860	33.22	.88545

Chéneveau, 1907

%	d	%	d
	15°		
0	0.9991	9.04	0.9613
2.94	.9860	12.22	.9498
5.93	.9734	15.47	.9393
7.46	.9675		

Baud and Gay, 1909

%	d	%	d
	15°		
23.61	0.91470	50.62	0.8312
38.64	.87075	54.54	.8164
45.92	.84730	62.94	.7850
47.904	.84040	76.64	.7262
49.917	.83340	100.00	.6189

Blanchard and Pushee, 1912

N	d
25°	
0	0.997
2	.983
4	.970
6	.958
8	.943

Ferguson, 1912

%	d	%	d
	15.6°		
0	0.9991	17.28	0.9340
0.40	.9973	17.76	.9324
0.80	.9955	18.24	.9309
1.21	.9938	18.72	.9293
1.62	.9920	19.20	.9278
2.04	.9903	19.68	.9263
2.46	.9885	20.16	.9247
2.88	.9867	20.64	.9232
3.30	.9850	21.12	.9217
3.73	.9833	21.60	.9202
4.16	.9816	22.08	.9186
4.59	.9798	22.56	.9171
5.02	.9781	23.04	.9176
5.45	.9764	23.52	.9141
5.88	.9747	24.01	.9126
6.31	.9730	24.50	.9112
6.74	.9713	24.99	.9097
7.17	.9696	25.48	.9082
7.61	.9680	25.97	.9067
8.05	.9663	26.46	.9052
8.49	.9646	26.95	.9038
8.93	.9630	27.44	.9023
9.38	.9613	27.93	.9009
9.83	.9596	28.42	.8995
10.28	.9580	28.91	.8981
10.73	.9564	29.40	.8966
11.18	.9547	29.89	.8952
11.64	.9531	30.38	.8938
12.10	.9515	30.87	.8923
12.56	.9499	31.36	.8909
13.02	.9483	31.85	.8895
13.49	.9466	32.34	.8881
13.96	.9450	32.83	.8867
14.43	.9435	33.32	.8853
14.90	.9419	33.81	.8839
15.37	.9403	34.30	.8825
15.84	.9387	34.79	.8811
16.32	.9371	35.28	.8797
16.80	.9356		

Stocker, 1920

%	t	d
0	17.0	0.9988
4.48	15.90	.9840
9.30	15.70	.9621
13.48	16.50	.9471
19.90	15.60	.9259

Neuhausen and Patrick, 1921

mol%	d	mol%	d	mol%	d
0°		20°		40°	
51.676	0.842	34.886	0.882	25.011	0.902
52.382	.842	36.508	.878	25.365	.9005
54.735	.833	42.077	.864	30.690	.8833
61.206	.817	42.392	.862	33.134	.8755
62.765	.812	43.086	.854	36.326	.864
65.076	.803	43.731	.848	39.026	.856
65.711	.800	48.175	.845	41.133	.849
66.621	.795	49.941	.835	42.925	.843
		53.940	.825	44.624	.837
		55.970	.817	44.557	.837
		56.923	.815	46.335	.828

Carstens, 1924

%	d	%	d
	20°		
0	0.9982	24.33	0.9120
5.05	.9790	26.64	.9050
10.37	.9584	30.71	.8930
15.34	.9410	32.89	.8870
21.49	.9208		

Price and Hawkins, 1924

%	d	%	d
	15.6°		
36.81	0.87519	20.34	0.92464
36.47	.87636	20.31	.92478
36.36	.87653	19.93	.92601
35.72	.87836	19.95	.92607
35.20	.88000	18.80	.92978
35.07	.88052	18.57	.93042
34.98	.88061	18.57	.93052
34.99	.88083	18.34	.93122
34.47	.88204	18.34	.93122
34.10	.88325	17.02	.93556
33.77	.88410	15.85	.93929
33.69	.88465	15.83	.93938
33.66	.88721	14.07	.94538
32.78	.88861	13.00	.94920
32.35	.88973	13.02	.94921
31.95	.89037	12.50	.95082
31.71	.89055	12.49	.95087
31.66	.89394	10.05	.95968
30.55	.89812	9.47	.96172
29.15	.90341	9.47	.96174
27.37	.91016	8.21	.96646
25.06	.91018	8.21	.96652
25.05	.91145	7.03	.97088
24.67	.91622	7.03	.97090
23.08	.91625	5.19	.97817
23.07	.91658	5.12	.97842
22.95	.91661	5.13	.97843
22.95	.91945	3.18	.98638
22.08	.92113	3.00	.98715
21.45	.92232	3.00	.98716
21.12	.92235		

Mittasch, Kuss and Schlieter, 1926

t	d	t	d	t	d
20.7%		29.9%		40.75%	
0.30	0.9294	0.30	0.9039	0.50	0.8734
10.70	.9294	0.55	.9039	1.10	.8730
11.60	.9239	6.00	.9015	6.30	.8689
20.45	.9198	11.30	.8982	11.00	.8654
21.20	.9196	11.40	.8980	11.60	.8647
30.05	.9149	20.50	.8921	20.55	.8576
30.08	.91475	21.30	.8917	20.70	.8576
30.10	.91485	22.55	.8911	21.75	.8567
30.10	.9148	30.18	.8860	23.45	.8545
30.75	.9145	30.25	.8858	24.30	.8556
39.90	.9091	30.65	.8854	30.05	.8499
39.90	.9091	39.70	.8792	30.33	.8496
40.00	.9089	39.80	.8790	30.40	.8495
40.00	.9090	49.00	.8721	30.85	.8492
50.05	.9026	49.90	.8716	39.35	.8419
50.30	.9024	59.70	.8638	39.45	.8418
60.10	.8963	59.70	.8639	39.50	.8417
60.20	.8964	59.90	.8636		

t	d	t	d
42.75 %			
0.35	0.8678	30.70	0.8426
0.40	.8678	32.00	.8421
0.54	.8677	39.70	.8349
7.30	.8622	40.30	.8343
12.20	.8584	50.30	.8255
20.50	.8516	54.85	.8208
30.65	.8430		
42.65 %			
0.25	0.8686	30.55	0.8448
11.95	.8589	39.95	.8349
21.90	.8512	50.95	.8261
49.05 %			
0.28	0.8496	31.00	0.8222
0.44	.8492	40.40	.8129
7.05	.8437	49.85	.80375
11.45	.8397	50.40	.8034
20.30	.8320	55.50	.7980
30.55	.8224	59.80	.7937
30.80	.8222		
50.83 %			
0.9	0.8436	10.65	0.8350
7.1	.8380		

King, Hall and Ware, 1930

%	d	%	d
20°			
0.45	0.9960	72.49	0.7356
7.72	.9661	75.07	.7240
14.61	.9409	78.38	.7094
24.14	.9094	80.95	.6984
29.70	.8890	89.72	.6585
35.98	.8730	89.81	.6577
44.56	.8458	90.81	.6531
47.45	.8363	90.94	.6530
53.48	.8149	91.41	.6505
54.40	.8111	96.66	.6263
61.16	.7850	96.68	.6262
63.64	.7744	97.18	.6240
64.51	.7705	97.36	.6232
70.47	.7443	100.00	.61029
72.56	.7354		

Schmidt, 1905

%	t	π
2.8	15.9	77.1
4.3	15.4	76.7
7.3	14.7	75.6
11.6	14.6	73.5
17.4	19.5	64.6
17.7	14.2	70.6
23	12.7	64.6

Carstens, 1924

%	π	%	π
20°			
0	49.1	24.33	42.2
5.05	46.4	26.64	42.0
10.37	44.8	30.71	42.4
15.34	43.3	32.89	42.7
21.49	42.3		

Viscosity and surface tension

Pagliani and Batelli, 1884

%	η 0°	η 5.80°	η 13.35°
0	1775	1479	1195
31.2	2346	-	1543
42.6	1989	1709	-
47.0	1773	-	-

Blanchard, 1904

M	η(water=1)	M	η(water=1)
	25°		
1.30	1.024	5.93	1.130
2.66	1.056	6.60	1.152
4.16	1.092	8.39	1.188

Blanchard and Pushee, 1912

N	η(water=1)
	25°
0	1.000
2	.040
4	.081
6	.121
8	.169

Domke, 1902

%	σ	%	σ
	18°		
0	73.0	15	61.3
5	66.5	20	59.3
10	63.6	25	57.7

Loewenfeld, 1905

%	σ	%	σ
	15°		
0	74.60	15.4	60.11
4.3	70.61	20.9	62.99
9.7	59.83	25	63.67

Stocker, 1920

%	σ	%	σ
	18°		
0	72.56	16.5	61.31
4.48	67.39	15.6	57.73
9.30	63.76		

King, Hall and Ware, 1930

%	σ	%	σ
	20°		
0.45	72.55	72.56	31.44
7.72	65.74	75.07	30.57
14.61	62.15	78.38	29.34
24.14	58.02	80.95	28.11
29.70	55.58	89.72	25.22
35.98	52.29	89.81	25.11
44.56	48.08	90.81	24.57
47.45	46.62	90.94	24.42
53.48	42.65	91.41	24.70
54.40	41.63	96.66	23.02
61.16	37.90	96.68	23.09
63.64	36.40	97.18	22.78
64.51	35.87	97.36	22.81
70.47	32.99	100.00	22.03
72.49	31.84		

Optical and electrical properties

Zecchini, 1905

%	t	n_D	%	t	n_D
0	20	1.33298	17.1920	24.3	1.34167
5.4610	17.8	.33600	18.8400	19	.34324
10.5440	17.2	.33869	21.8020	21.4	.34508

Chéneveau, 1907

%	n_D	%	n_D
	15°		
0	1.3334	9.04	1.3384
2.94	.3349	12.22	.3402
5.93	.3366	15.47	.3424
7.46	.3375		

Thermal constants

Mollier, 1909

% initial	% final	t	Q mix (by 1Kg NH_3 liqu.)
0	0.42	14.8	192.1
-	0.48	15.0	193.6
-	18.9	10.5	172.5
-	-	11.8	166.4
-	43.7	13.4	127.5
-	44.1	13.5	127.6
14.3	32.8	13.8	139.2
14.5	36.4	13.9	127.8
15.9	37.7	12.6	121.5
14.5	42.0	14.1	119.3
26.5	49.0	12.2	83.5
-	50.5	13.4	83.6
-	54.9	12.7	76.1
40.1	59.6	13.1	31.6
45.3	64.3	13.1	19.5
74.9	82.7	12.9	-

Baud and Gay, 1909

%	Q mix (cal/100g)	%	Q mix (cal/100g)
18.08	3.33	44.06	6.084
24.82	4.307	47.72	.272
32.09	5.245	48.00	.254
35.44	.645	48.45	.262
35.55	.625	52.17	.165
36.14	.679	52.95	.115
36.23	.697	54.80	.119
36.30	.738	55.50	.172
37.10	.795	56.10	.110
39.48	.895	64.77	5.247
39.59	.939	66.20	5.101
39.77	.943	80.34	3.550

Vrevskii, 1910

mol%	Q diss	mol%	Q diss
3°		19.9°	
0.79	68	1.1	90
1.6	135	3.2	264
3.3	282	6.3	516
4.9	422	8.1	665
6.5	558	11.0	905
7.5	636	13.0	1060
16.6	1390	16.0	1301
20.6	1717	16.6	1340
24.8	2042	24.8	1970
41°		61°	
0.7	55	1.0	75
2.3	185	1.8	138
4.9	397	2.7	212
6.7	538	3.6	283
8.5	683	4.6	360
10.3	826	5.6	434
16.6	1311	13.1	1017
20.6	1615		

Vrevskii, 1910 and Vrevskii and Sawaritzki, 1924

mol %	Q diss (cal/mole)	mol %	Q diss (cal/mole)
3°			
0.79	8571	7.36	8514
1.57	8613	16.55	8398
3.14	8633	20.62	8328
3.26	8626	24.75	8250
4.09	8606	31.45	8079
4.50	8557	38.02	7884
4.91	8592	41.67	7811
5.62	8575		
19.9°			
1.08	8336	16.02	8123
2.16	8314	17.00	8104
3.17	8316	17.89	8085
4.07	8309	18.79	8066
5.14	8289	19.63	8048
6.22	8275	20.65	8031
7.11	8264	21.41	8007
8.06	8253	22.27	7988
9.07	8241	23.09	7972
9.67	8232	23.91	7951
11.05	8215	24.75	7960
12.10	8193	25.38	7922
12.97	8178	31.45	7785
14.02	8163	38.02	7597
15.02	8144		
41°			
0.68	8104	7.57	8022
1.55	8096	8.51	8025
2.29	8090	9.34	8009
3.01	8081	10.33	7991
3.90	8076	16.55	7918
4.92	8069	20.62	7832
5.79	8051	24.75	7750
6.68	8076		
61°			
0.96	7845	4.61	7817
1.77	7809	5.56	7814
2.71	7814	13.05	7813
3.62	7818		

Zinner, 1934

Heat of mixing (see author)

Water + Hydrogen phosphide (PH_3)

Cailletet and Bordet, 1882

t	p dissoc.	t	p dissoc.
(8+1)			
2.2	2.8	14.0	8.9
4.0	3.0	15.0	9.8
6.8	3.9	17.0	11.0
9.0	5.1	20.0	15.1
11.0	6.7		

Water + Hydrazine (H_4N_2)

Lobry De Bruyn and Dito, 1902 - 1903

b.t.	mol% L	mol% V	b.t.	mol% L	mol% V
102.2	9.4	0.18	120.2	51.8	44.6
104.6	14.2	-	120.35	53.3	48.75
105.9	-	1.6	120.45	54.8	52.8
107.45	19.5	2.7	120.5	56.0	53.5
109.15	-	3.9	120.5	58.5	58.5
111.0	-	6.2	120.5	62.5	-
114.95	34.0	13.8	102.25	65.8	72
117.95	41.7	25.0	119.9	68.3	75.5
118.6	42.9	30.3	119.5	72.7	81
119.2	45.2	34.9	119.25	73.6	83.7
119.8	50.3	41.7	118.8	76	-

Bjorkman, 1947

% L	% V	mol % L	mol % V	b.t.
4.56	0.74	2.6	0.1	-
18.2	2.45	11.1	1.4	104.9
19.73	2.62	11.9	1.5	106.2
28.5	6.91	18.3	4.0	107.8
38.9	16.5	26.4	10.0	114.2
45.2	26.4	32.6	16.8	116.1
46.2	26.4	32.6	16.8	116.8
46.7	28.6	33.2	18.4	116.8
50.8	34.2	36.7	22.6	118.9
55.4	44.3	41.1	30.9	-
59.3	52.9	45.0	38.7	119.7
62.0	56.2	46.7	22.6	118.9
62.1	56.8	48.0	42.5	121.7

Burtle, 1952

p	Az mol%
124.8	53
281.8	54
411.2	55.5
560.4	55
700.6	54

b.t.	mol% V	mol% L	b.t.	mol% V	mol% L
124.8 mm			281.8 mm		
56.17	0.00	0.00	74.38	0.00	0.00
58.9	0.79	9.60	77.6	0.79	9.09
63.8	3.40	20.09	83.8	5.94	22.22
69.7	15.57	32.03	88.4	13.21	31.34
74.0	45.02	48.58	93.0	39.46	45.95
74.2	48.26	49.87	93.3	45.95	49.66
73.9	57.33	54.78	93.2	57.33	55.58
71.7	74.97	67.77	91.9	77.26	68.15
69.1	93.10	84.72	89.6	89.31	81.83
66.8	99.65	98.95	86.5	99.46	98.76
411.2 mm			560.4 mm		
83.66	0.00	0.00	91.73	0.00	0.00
86.9	0.85	9.35	95.5	1.02	9.94
92.4	4.59	20.09	100.3	4.78	19.70
93.5	5.39	21.84	106.4	16.14	31.67
98.4	14.79	31.67	110.9	42.11	48.47
102.8	37.84	45.22	111.3	54.77	54.78
103.4	49.12	51.51	110.2	78.12	68.82
103.6	55.92	55.01	107.9	90.63	83.03
102.2	75.25	67.63	105.2	98.60	97.37
99.4	90.30	83.80			
96.8	98.60	98.06			
700.6 mm			700.6 mm		
97.75	0.00	0.00	117.6	55.23	54.89
101.5	0.40	8.84	116.9	74.42	67.36
106.8	5.63	20.54	114.2	90.45	83.96
112.6	15.85	31.84	111.7	98.76	97.87
117.2	43.08	48.58			

Lecat, 1949

%	b.t.
58.5	120 Az
100	113.5

Semishin, 1938

mol%	f.t.	mol%	f.t.
0.00	0	51.46	-47.1
4.21	-2.6	55.23	49.6
6.18	4.0	57.39	51.0
9.22	7.0	59.07	52.2
13.20	11.5	65.68	50.0
15.06	13.6	66.71	32.9
17.10	15.7	69.04	23.8
18.18	16.8	71.81	20.9
22.11	32.1	74.72	17.0
25.94	41.1	77.53	14.4
26.99	50.7	82.58	9.6
30.25	54.6	86.13	6.7
44.14	55.3	89.84	4.0
46.60	52.1	94.19	1.4
50.07	-46.8(1+1)	100.00	+1.7

Mohr and Audrieth, 1949

mol%	f.t.	mol%	f.t.	
3.11	-3.80	45.8	-52.6	
3.71	4.30	46.5	52.2	
4.43	5.30	50.2	51.7	(1+1)
5.10	6.40	50.8	52.0	
7.06	9.80	52.9	52.7	
7.51	10.30	54.0	52.6	
8.58	12.70	55.8	50.3	
11.20	19.10	56.2	52.8	?
12.10	22.00	57.1	46.8	
12.50	22.30	57.1	46.2	
13.30	24.70	57.6	44.2	
13.80	25.30	59.1	40.2	
14.70	30.30	62.5	34.1	
15.20	30.80	62.8	32.7	
16.50	37.30	70.5	20.4	
17.60	41.60	74.9	15.6	
18.20	44.30	76.2	14.8	
19.20	46.30	83.6	8.7	
23.70	65.90	96.4	0.1	
31.40	75.80	97.1	+0.2	
35.40	61.70	98.2	+0.9	
43.00	-53.70	99.3	+1.6	

Hill and Sumner, 1951

%	f.t.	%	f.t.
0.0	0.0	54.7	-56.0
13.3	-11.0	55.4	56.5
21.4	23.4	57.9	54.1
29.8	46.7	60.5	53.2
34.9	63.6	62.2	52.0
36.8	67.3	63.9	51.4
38.9	82	68.0	52.4
39.6	84	70.1	49.2
42.1	83	77.0	29.8
43.3	78	87.7	11.2
47.7	66.7	95.6	3.4
50.9	63.1	96.9	2.8
51.6	61.8	97.8	+1.2
52.9	-58.9		

Dito, 1901-02

%	d	%	d
		15°	
0	0.9991	67.4	1.0464
14.0	1.0142	72.0	.0440
26.45	.0272	74.9	.0421
34.25	.0340	78.5	.0400
40.85	.0389	80.0	.0379
46.40	.0425	84.0	.0358
55.30	.0461	90.8	.0300
59.90	.0464	100.0	.0114
64.10	.0470		

Semishin, 1938

%	d 0°	25°	50°
0.00	0.9999	0.9971	0.9881
1.98	1.0025	0.9995	.9903
7.48	.0119	1.0061	.9952
9.17	.0150	.0082	.9972
13.05	.0207	.0121	1.0000
16.57	.0250	.0152	.0022
21.18	.0308	.0192	.0042
26.89	.0351	.0231	.0084
28.77	.0382	.0246	.0095
31.43	.0401	.0257	.0108
33.90	.0420	.0264	.0116
36.65	.0440	.0278	.0120
40.05	.0454	.0293	.0128
43.70	.0466	.0305	.0133
47.29	.0473	.0313	.0135
49.18	.0477	.0319	.0137
51.84	.0481	.0322	.0136
56.77	.0480	.0318	.0133
60.41	.0479	.0314	.0126
63.64	.0473	.0298	.0119
69.34	.0461	.0268	.0074
71.83	.0443	.0248	.0056
77.82	.0405	.0205	.0005
83.14	.0351	.0161	0.9960
89.88	.0307	.0094	.9888
100.00	.0231	.0024	.9801

%	η 0°	25°	50°
0.00	1789	894	550.0
1.98	1826	923	560.6
7.48	2054	1056	634.4
9.17	2135	1108	680.6
13.05	2345	1204	718.4
16.57	2622	1303	770.3
21.18	2868	1462	839.4
26.89	3098	1567	878.9
28.77	3202	1600	894.9
31.43	3312	1620	940.6
33.90	3405	1650	944.6
36.65	3423	1673	958.6
40.05	3532	1685	969.2
43.70	3552	1705	981.5
47.29	3555	1710	991.2
49.18	3557	1711	992.2
51.84	3530	1696	987.3
56.77	3358	1642	967.7
60.41	3224	1612	947.3
63.64	3094	1534	922.3
69.34	2764	1435	881.4
71.83	2615	1383	857.1
77.82	2267	1244	802.8
83.14	1996	1124	746.7
89.88	1633	1085	700.2
100.00	1365	902	673.1

Dito, 1904-05

mol%	flow in sec. 0°	25°
0	182.8	89.2
11.4	229.5	118.5
19.0	268.9	138.6
35.25	341.6	171.6
45.5	352.9	177.7
54.5	343.2	182.5
65.1	296.5	158.5
74.2	259.2	144.1
81.8	216.1	134.6
89.6	178.6	111.2
100.0	133.4	88

Kretschmar, 1954 (fig.)

%	sound velocity (m/sec)
	25°
0	1500
20	1650
40	1850
60	1950
80	2050
100	2100

Water + Antimony trifluoride (SbF_3)

Rosenheim and Grünbaum, 1909

%	f.t.
79.37	0
81.64	20
81.91	22.5
93.12	25
84.93	30

Water + Antimony trichloride ($SbCl_3$)

van Bemmelen, Meerburg and Noodt, 1903

%	f.t.	%	f.t.
85.77	0	92.00	35
89.05	15	93.20	40
90.17	20	95.06	50
90.83	25	98.02	60
91.41	30	100.00	72

Water + Fluosilicic acid (SiF_6H_2)

Stolba, 1888

%	d	%	d
	17.5°		
0	0.9987	18	1.1543
1	1.0067	19	.1638
2	.0148	20	.1733
3	.0229	21	.1829
4	.0311	22	.1926
5	.0394	23	.2022
6	.0478	24	.2120
7	.0562	25	.2219
8	.0647	26	.2319
9	.0733	27	.2420
10	.0820	28	.2521
11	.0908	29	.2623
12	.0997	30	.2725
13	.1086	31	.2829
14	.1176	32	.2934
15	.1266	33	.3048
16	.1358	34	.3145
17	.1451		

LXVII. WATER + ANHYDRIDES AND ACIDS .

Water + Chlorine monoxide (Cl_2O)

Secoy and Cady, 1941

%	p_2	%	p_2
	0°		
7.1	1	31.9	40
14.3	5	34.6	50
19.1	10	36.2	60
25.2	20	37.5	70
28.9	30	38.1	75
	10°		
4.9	1	24.8	40
11.0	5	26.6	50
14.8	10	28.1	60
19.5	20	29.3	70
22.6	30	29.8	75
	20°		
3.4	1	17.6	40
7.4	5	19.1	50
10.0	10	20.5	60
13.3	20	21.7	70
15.8	30	22.2	75

Dito, 1904-05

mol%	flow in sec. 0°	25°
0	182.8	89.2
11.4	229.5	118.5
19.0	268.9	138.6
35.25	341.6	171.6
45.5	352.9	177.7
54.5	343.2	182.5
65.1	296.5	158.5
74.2	259.2	144.1
81.8	216.1	134.6
89.6	178.6	111.2
100.0	133.4	88

Kretschmar, 1954 (fig.)

%	sound velocity (m/sec)
	25°
0	1500
20	1650
40	1850
60	1950
80	2050
100	2100

Water + Antimony trifluoride (SbF_3)

Rosenheim and Grünbaum, 1909

%	f.t.
79.37	0
81.64	20
81.91	22.5
93.12	25
84.93	30

Water + Antimony trichloride ($SbCl_3$)

van Bemmelen, Meerburg and Noodt, 1903

%	f.t.	%	f.t.
85.77	0	92.00	35
89.05	15	93.20	40
90.17	20	95.06	50
90.83	25	98.02	60
91.41	30	100.00	72

Water + Fluosilicic acid (SiF_6H_2)

Stolba, 1888

%	d	%	d
	17.5°		
0	0.9987	18	1.1543
1	1.0067	19	.1638
2	.0148	20	.1733
3	.0229	21	.1829
4	.0311	22	.1926
5	.0394	23	.2022
6	.0478	24	.2120
7	.0562	25	.2219
8	.0647	26	.2319
9	.0733	27	.2420
10	.0820	28	.2521
11	.0908	29	.2623
12	.0997	30	.2725
13	.1086	31	.2829
14	.1176	32	.2934
15	.1266	33	.3048
16	.1358	34	.3145
17	.1451		

LXVII. WATER + ANHYDRIDES AND ACIDS .

Water + Chlorine monoxide (Cl_2O)

Secoy and Cady, 1941

%	p_2	%	p_2
	0°		
7.1	1	31.9	40
14.3	5	34.6	50
19.1	10	36.2	60
25.2	20	37.5	70
28.9	30	38.1	75
	10°		
4.9	1	24.8	40
11.0	5	26.6	50
14.8	10	28.1	60
19.5	20	29.3	70
22.6	30	29.8	75
	20°		
3.4	1	17.6	40
7.4	5	19.1	50
10.0	10	20.5	60
13.3	20	21.7	70
15.8	30	22.2	75

Water + Chlorine dioxide (ClO_2)

Bray, 1906

M	f.t.	M	f.t.
0.382	0.161	0.657	0.305
0.426	0.188	1.035	0.455
0.498	0.228	1.092	0.465
0.531	0.221	2.023	0.801
0.400	-0.79 E	1.60	18.2 tr.t.
0.409	0.0	1.61	1.0 $L_1 + L_2$
0.437	+1.0	1.73	10.7
0.624	5.7	1.60	14.0
0.890	10.0	1.60	18.2
1.29	15.3		

Water + Chloric acid ($HClO_3$)

Rubien, 1911

M	d	n_D
	18°	
0	0.99862	1.33327
0.4105	1.01870	.33694
0.821	.03859	.34053
1.642	.07813	.34770
3.284	.1567	.36163

Heydweiller, 1912

M	d	κ
	18°	
0.0817	1.00261	283.1
.1635	.00663	552.7
.4105	.01870	1322
.8210	.03859	2469
1.6420	.07810	4310
3.2840	.15670	6404

Heydweiller, 1913

N	n_D
18°	
0	1.33327
0.5	.33773
1.0	.34211
2.0	.35078
3.0	.35927

Jauch, 1921

N	U
18°	
0.5	0.95645
1	.9156
2	.8481
3	.7753
4	.7140

Water + Iodic acid (IO_3H)

Lescoeur, 1890

t	p dissoc.	t	p dissoc.
	(1+1)		
20	1	78.5	165
40	9	85	293
69	114	100	526

Rosenheim and Liebknecht, 1899

%	b.t.	%	b.t.
0	100	5.26	100.184
3.20	100.120	5.53	100.201
3.34	100.111	5.70	100.230
5.00	100.165	9.70	100.385
5.18	100.190	23.05	100.772
5.22	100.196		

Groschuff, 1905

%	f.t.		%	f.t.
1.78	-0.30	I_2O_5	0.59	-0.108
4.35	0.67		1.23	.218
7.17	1.01		1.78	.300
17.66	1.90		2.51	.414
27.65	2.38		2.94	.483
54.19	4.72		3.16	.507
60.72	6.32		4.37	.672
71.04	12.25		5.36	.799
72.20	13.50		5.67	.831
73.80	15		7.18	1.007
76.20	19		11.96	.478
72.80	-14	E	17.65	.900
74.10	0	IO_3H	27.64	2.385
75.60	+16		54.2	4.722
77.70	40		60.7	6.320
80.00	60		71.0	-12.25
82.50	80			
83.00	85			
85.20	101			
86.50	110	tr.t. IO_3H-		
87.20	125	I_3O_8H		
88.30	140			
90.50	160			

Abel, Redlich and Hersch, 1934

m	f.t.	m	f.t.
0.012677	-0.04423	0.31701	-0.5796
.026657	.08965	.43087	0.9892
.027742	.09315	.51843	0.9892
.036031	.11874	.60470	1.1305
.068745	.21451	.68070	.2584
.08320	.25449	.75600	.3609
.11034	.32556	.75600	.4546
.18893	-0.51500	.91380	.6271
		1.03840	-1.7428

Thomsen, 1874

mol %	d	mol %	d
	17°		
0	0.9988	0.62	1.0512
0.33	1.0258	1.20	1.1004

Groschuff, 1905

%	d	%	d
	0°		
0.55	1.0041	8.18	1.0751
1.09	1.0088	15.26	1.1491
2.15	1.0184	27.23	1.2921
4.24	1.0375		

Kämmerer, 1910

%	d	%	d
	14°		
0	0.9993	35	1.4418
1	1.0046	40	.5360
5	.0256	45	.6303
10	.0517	50	.7243
15	.1215	55	.8675
20	.2084	60	.9939
25	.2764	65	2.1253
30	.3474		

Rubien, 1911

M	d	M	d
	18°		
0	0.99862	1.004	1.14530
0.1001	1.01363	2.010	1.28828
0.2003	1.02841	4.018	1.56903
0.5022	1.07257		

Heydweiller, 1912

M	d	M	d
	18°		
0.0997	1.01363	1.003	1.14530
.1996	.02841	2.010	.28828
.5009	.07257	4.018	.56902

Lühdemann, 1935

N	d	N	d
	25°		
0	0.99707	5.4532	1.76607
1.3807	1.19706	5.6534	1.79362
2.3362	.33223	6.8087	1.95300
2.4171	.34352	7.7358	2.08047
3.2498	.45999	9.8442	2.36858

Randall and Taylor, 1941

m	d
25°	
0.1888	1.0256
0.9760	.1349
2.2540	.2984
3.6132	.4547
10.0510	2.0209

Moles and Pérez, 1932

%	η(water=1)	%	η(water=1)
	25°		
3.2	1.0218	26.8	1.2093
9.1	.0437	33.3	.3375
20.0	.1125	46.0	.6500

Rubien, 1911

M	n_D	M	n_D
	18°		
0	1.33327	1.004	1.35648
0.1001	.33563	2.010	.37923
0.2003	.33799	4.018	.42429
0.5022	.34499		

Heydweiller, 1913

M	n_D	M	n_D
	18°		
0	1.33327	0.5	1.34498
0.1	.33568	1.0	.35642
0.2	.33802	2.0	.37910

Lühdemann, 1935

N	n_{He}	N	n_{He}
	25°		
0	1.33248	5.4532	1.45526
1.3807	.36394	5.6534	.45969
2.3362	.38535	7.7358	.50674
3.2498	.40576	9.8442	.55493

Groschuff, 1905

M	molar conductivity						
	0°	18°	25°	50°	60°	75°	80°
2	74.7	106.2	117.5	152	-	175	-
1	102	140	154	197	210	223	-
0.5	126	175	192	243	259	275	279
.25	150	210	230	294	313	333	337
.12	173	243	268	345	367	395	402
.062	194	271	301	391	419	453	463
.031	210	297	328	431	465	507	519
.016	223	310	350	464	502	552	566
.008	231	328	364	486	526	582	597
.004	236	335	372	498	540	600	615
.002	239	340	377	506	549	612	628
.001	239	341	380	510	553	618	634

Heydweiller, 1912

N	κ
18°	
0.0997	252.2
0.1996	439.3
0.5009	874.6
1.003	1416
2.010	2130
4.018	2829

Jauch, 1921

N	U	
18°		
0.5	0.91825	
1	.85940	(sic.)
2	.76520	
3	.68110	
4	.63600	

Randall and Taylor, 1941

m	U	m	U
	25°		
0.0658	0.99646	0.9760	1.01162
.1888	.99648	1.0311	.01291
.2313	.99646	1.4501	.02547
.3774	.99739	1.9580	.04345
.5296	1.00022	2.2572	.05744
.6583	.00344	2.3287	.05928
.6795	.00258	3.6020	.11368

Water + Perchloric acid (ClO_4H)

Pearce and Nelson, 1933

m	p	m	p
	25°		
0.00000	23.752	3.1512	20.192
.10016	23.672	4.2734	18.387
.20064	23.593	5.4347	16.308
.40257	23.429	6.6372	13.935
.60655	23.254	7.8719	11.490
.81037	23.067	9.1723	9.016
1.01589	22.870	10.5132	6.838
2.06610	21.693	11.9050	4.982

Roscoe, 1862

Az : 72.3% 203°

Robinson and Baker, 1946-47

Isopiestic solutions at 25°

m_1	m_2	m_1	m_2
0.1161	0.1183	1.707	2.010
.1178	.1199	2.015	2.425
.2647	.2743	.450	3.029
.3336	.3472	.560	.186
.3815	.3991	.584	.223
.4747	.5011	.715	.410
.5063	.5368	.930	.719
.6685	.7183	3.213	4.132
.6753	.7255	3.282	4.245
.9921	1.0140	4.001	5.332
1.1060	.2370	4.434	6.023
.1620	.3080	4.505	.128
.5120	.7570	4.525	.152

m_1	m_3	m_1	m_3
4.399	4.233	10.852	12.058
5.275	5.129	11.140	12.494
6.268	6.183	11.468	13.013
7.011	7.008	12.527	14.677
8.007	8.278	13.611	16.480
8.286	8.555	14.583	18.185
9.515	10.182	15.682	20.213
9.978	10.813		

m_1 - ClO_4H m_2 - NaCl m_3 - H_2SO_4

Robinson and Stokes, 1949

m	osmotic coef.	m	osmotic coef.
	25°		
0.1	0.947	1.6	1.141
.2	.951	1.8	.175
.3	.958	2.0	.210
.4	.966	2.5	.305
.5	.976	3.0	.406
.6	.988	3.5	.511
.7	1.000	4.0	.622
.8	.013	4.5	.738
.9	.026	5.0	.860
1.0	.041	5.5	.981
1.2	.072	6.0	2.106
1.4	.106		

van Wyk, 1906

mol%	f.t.	mol%	f.t.
	(1+1)		
94	-40.0	56.6	+48.0
90.7	-21.5	50.0	50.0
83.3	+2.2	47.9	49.6
80.2	12.0	43.7	40.0
77.7	17.0	40.8	28.6
71.5	27.5	38.0	+3.0
59.9	45.0	37.0	-12.5
	(1+2)		
36.0	-21.5	28.57	-30.3
33.33	-17.8	28.00	-34.0
32.5	-18.0	27.25	-41.0
29.9	-24.0	27.00	-44.0
	(3+1) I		
27.0	-38.8	24.0	-37.6
26.0	-37.5	22.75	-39.5
25.0	-37.0	22.50	-40.5
	(3.5+1)		
23.5	-43.0	20	-45.0
22.22	-41.4	19	-50.5
21.0	-42.3		
	(2.5+1)		
28.57	-29.8	26	-32.0
27.25	-30.0	25	-37.2
	(3+1) II		
26.0	-44.5	24	-44.0
25.0	-43.2	22.5	-47.8
24.5	-43.5		

mol%	f.t.	m.t.	mol%	f.t.
	mixed crystals II		mixed crystals I	
17.5	-46.0	-51.8	24.45	-41.8
17.2	45.0	50.5	23.5	36.5
16.7	43.0	48.0	23.0	35.0
16.4	42.0	46.0	22.5	34.2
15.5	41.0	41.7	22.2	34.1
15.0	41.8	42.6	21.5	34.0
14.3	43.2	45.6	20.4	34.2
13.3	46.0	58.0	20.0	35.2
13.0	47.5	57.5	19.1	37.7
12.5	50.0	57.5	18.4	39.8
11.8	-53.5	-58.0	18.0	-43.5

L %	mixed crystals I	mol%	f.t.anh.
23.8	22.91	11.0	-54.0
21.8	21.46	9.0	34.5
20.0	21.17	7.0	21.0
18.8	19.88	4.1	-10.0
18.0	19.14	0.0	0

Brickwedde, 1949

%	f.t.	%	f.t.
0	0	46	-49.6
5	-1.87	50	45.0
10	4.25	52	45.4
15	7.37	54	49.1
20	11.75	56.1	56.8 tr.t.
25	18.2	58	51.4 (y+1)
30	26.5	60	46.7
35	39.1	62	43.2
40.7	59.7 E	64	40.5
42	57.0 (x+1)	66	38.4
44	-53.2	70	-29.9 (z+1)

Properties of phases

van Wyk, 1906

%	d 20°	d 50°
27.07	1.1778	1.1574
39.73	.2901	.2649
50.51	.4078	.3779
60.38	.5353	.5007
68.42	6471	.6110
75.59	.7486	.7023
81.07	-	.7619
84.81	-	.7756
90.80	-	.7690
94.67	1.8059	.7531
98.62	.7817	.7259
100.00	.7676	.7098

van Emster, 1907

%	d 15°	d 30°	d 50°
11.14	1.0670	-	1.0507
35.63	.2569	1.2451	.2292
55.63	.4807	.4637	.4421
69.81	.6708	-	.6284

d	%	d	%	d	%
		15°			
0.999	0	1.230	32.74	1.455	53.71
1.005	1.00	.235	33.29	.460	54.11
.010	1.90	.240	33.85	.465	54.50
.015	2.77	.245	34.40	.470	54.89
.020	3.61	.250	34.95	.475	55.18
.025	4.43	.255	35.49	.480	55.56
.030	5.25	.260	36.03	.485	55.95
.035	6.07	.265	36.56	.490	56.32
.040	6.88	.270	37.08	.495	56.69
.045	7.68	.275	37.60	.500	57.06
.050	8.48	.280	38.10	.505	57.44
.055	9.28	.285	38.60	.510	57.81
.060	10.06	.290	39.10	.515	58.17
.065	10.83	.295	30.60	.520	58.54
.070	11.58	.300	40.10	.525	58.91
.075	12.33	.305	40.59	.530	59.28
.080	13.08	.310	41.08	.535	59.66
.085	13.83	.315	41.56	.540	60.04
.090	14.56	.320	42.03	.545	60.41
.095	15.28	.325	42.49	.550	60.78
.100	16.00	.330	42.97	.555	61.15
.105	16.72	.335	43.43	.560	61.52
.110	17.45	.340	43.89	.565	61.89
.115	18.16	.345	44.35	.570	62.26
.120	18.88	.350	44.81	.575	62.63
.125	19.57	.355	45.26	.580	63.00
.130	20.26	.360	45.71	.585	63.37
.135	20.95	.365	46.16	.590	63.74
.140	21.64	.370	46.61	.595	64.12
.145	22.32	.375	47.05	.600	64.50
.150	22.99	.380	47.49	.605	64.88
.155	23.65	.385	47.93	.610	65.26
.160	24.30	.390	48.37	.615	65.63
.165	24.94	.395	48.80	.620	66.01
.170	25.57	.400	49.23	.625	66.39
.175	26.20	.405	49.68	.630	66.76
.180	26.82	.410	50.10	.635	67.13
.185	27.44	.415	50.51	.640	67.51
.190	28.05	.420	50.91	.645	67.89
.195	28.66	.425	51.31	.650	68.26
.200	29.26	.430	51.71	.655	68.64
.205	29.86	.435	52.11	.660	69.02
.210	30.45	.440	52.51	.665	69.40
.215	31.04	.445	52.91	.670	69.77
.220	31.61	.450	53.31	.675	70.15
.225	32.18				

Linde, 1924

%	mol %	d	%	mol %	d
		25°			
10.06	1.96	1.055	50.34	15.375	1.402
19.57	4.18	.118	57.74	19.67	.493
26.85	6.17	.172	60.20	21.50	.531
31.20	7.51	.209	63.51	23.78	.573
32.67	8.00	.223	66.19	25.98	.609
34.44	8.78	.242	69.84	29.33	.664
36.60	9.37	.258	71.71	31.24	.685
39.54	10.495	.283	74.47	34.33	.720
39.95	10.65	.289	75.70	35.83	.737
45.80	13.20	.352	77.21	37.78	.757
		50°			
34.94	8.78	1.221	77.32	38.04	1.727
74.23	34.05	.687	79.47	41.71	.764

Mazzucchelli and Pro, 1926

%	d 15°	d 25°
5.20	1.02976	1.02680
9.98	.05948	.05554
18.69	.11866	.11249
52.15	.43550	.42590

Kohner and Grossmann, 1927

wt%	mol%	d	wt%	mol%	d
		25°			
15.5513	3.15	1.09178	56.4577	15.44	1.40379
16.1457	3.34	.09587	58.856	18.49	.47113
25.2152	5.70	.16134	61.945	22.59	.55268
33.0229	8.12	.22540	66.422	26.17	.61406
44.9864	12.79	.34166	69.655	29.16	.65803

Hantzsch and Dürigen, 1928

%	d	%	d
	20°		
0	0.99540	15.845	1.09290
5.2994	1.0259	30.691	.2053
12.265	1.0691	69.892	.6608

Hantzsch and Dürigen, 1929

%	d	%	d
	20°		
2.2130	1.00777	25.332	1.16227
3.9910	.02574	35.9449	.25246
7.6938	.04052	52.927	.43554
13.174	.07520	58.486	.50702
15.7425	.09261	69.370	.66052

Fajans and Grossmann, 1930

mol%	d
	25°
0	0.99707
17.48	1.45013
24.86	.59346
29.03	.65724

Pearce and Nelson, 1933

m	d	m	d
	25°		
0.00000	0.997071	3.1512	1.15220
.10016	1.00263	4.2734	.19970
.20064	.00834	5.4347	.24543
.40257	.01918	6.6372	.29023
.60655	.02998	7.8719	.33273
.81037	.04087	9.1723	.37386
1.01589	.05135	10.5132	.41380
2.0661	.10322	11.9050	.45283

Markham, 1941

%	d 25°	d 30°	%	d 25°	d 30°
0	0.99707	-	26	1.16761	-
1	1.00265	-	28	.18359	-
2	.00828	-	30	.20002	1.19651
4	.01975	-	32	.21697	-
6	.03154	-	34	.23446	-
8	.04355	-	36	.25259	-
10	.05591	1.05388	38	.27130	-
12	.06862	-	40	.29073	1.28658
14	.08163	-	45	.34252	-
16	.09498	-	50	.39937	1.39435
18	.10866	-	55	.46134	-
20	.12280	1.11999	60	.52766	1.52177
22	.13734	-	65	.59628	-
24	.15224	-			

Brickwedde, 1949

%	d (g/ml) +50°	+25°	0°	-25°	-50°
0	0.9881	0.9971	0.9999	-	-
5	1.0150	1.0257	1.0308	-	-
10	.0437	.0560	.0637	-	-
15	.0744	.0882	.0986	-	-
20	.1075	.1228	.1356	-	-
25	.1433	.1600	.1749	-	-
30	.1821	.2002	.2168	1.2312	-
35	.2243	.2436	.2618	.2779	-
40	.2703	.2908	.3111	.3308	1.3515
45	.3205	.3428	.3657	.3893	.4140
50	.3752	.3999	.4255	.4528	-
55	.4349	.4615	.4897	.5203	.5590
60	.4994	.5275	.5580	.5908	.6300
65	.5673	.5963	.6288	.6620	-
70	.6344	.6644	.6987	.7306	-

Clark and Putnam, 1949

t	d 10%	20%	30%	40%	50%	60%
50	1.041	1.107	1.181	1.267	1.375	1.494
40	.046	.113	.188	.276	.385	.507
30	.051	.119	.195	.285	.395	.520
20	.056	.125	.203	.294	.405	.534
10	.061	.131	.210	.303	.415	.547
0	.066	.137	.217	.312	.425	.560
-10	-	.144	.225	.321	.435	.573
-20	-	-	.232	.330	.445	.586
-30	-	-	-	.339	.455	.599
-40	-	-	-	.348	.465	-
-50	-	-	-	.357	-	-
-58	-	-	-	.364	-	-

Viscosity and surface tension .

van Wyk, 1906

%	η (water^t=1) 20°	50°	%	η (water^t=1) 20°	50°
22.7	1.05	1.13	80.5	-	6.87
38.3	1.29	1.42	84.1	-	6.32
48.8	1.69	1.86	91.1	-	3.67
58.3	2.51	2.72	91.3	-	3.61
65.1	3.41	3.64	94.9	2.00	2.29
71.5	4.67	4.39	95.3	1.88	2.17
76.3	6.21	6.36	100.0	0.76	1.03

Linde, 1924

wt %	mol %	η (water^t=1)
	25°	
10.06	1.96	1.01
19.57	4.18	1.04
26.85	6.17	1.07
31.20	7.51	1.13
32.67	8.00	1.15
34.44	8.78	1.19
36.60	9.37	1.23
39.54	10.495	1.31
39.95	10.65	1.33
45.80	13.20	1.53
50.34	15.375	1.80
57.74	19.67	2.42
60.20	21.50	2.75
63.51	23.78	3.16
66.19	25.98	3.59
69.84	29.33	4.24
71.71	31.24	4.78
74.47	34.33	5.54
75.70	35.53	6.00
77.21	37.78	6.50
	50°	
34.94	8.78	1.37
74.23	34.05	5.78
77.32	38.04	6.60
79.47	41.71	6.90

Brickwedde, 1949

%	η +50°	+40°	+30°	+25°	+20°	+10°
0	547	653	798	890	1002	1306
5	557	662	803	894	1004	1287
10	569	675	813	901	1010	1280
15	586	692	829	913	1022	1286
20	610	715	853	937	1043	1307
25	641	750	890	974	1080	1347
30	684	794	941	1031	1139	1413
35	744	859	1013	1108	1223	1514
40	822	950	1118	1224	1345	1670
45	940	1080	1274	1395	1534	1900
50	1099	1271	1507	1650	1821	2268
55	1329	1548	1837	2022	2237	2819
60	1646	1928	2296	2532	2813	3560
65	2076	2440	2913	3211	3560	4523
70	2639	3094	3692	4060	4504	5675

%	η 0°	-10°	-20°	-30°	-40°	-50°
0	1786	2590	-	-	-	-
5	1743	2470	-	-	-	-
10	1714	2400	-	-	-	-
15	1701	2347	-	-	-	-
20	1707	2329	-	-	-	-
25	1745	2353	-	-	-	-
30	1815	2434	3415	-	-	-
35	1925	2572	3581	-	-	-
40	2113	2814	3928	5887	9670	18210
45	2426	3244	4582	7139	11960	23130
50	2914	3962	5732	9084	16220	-
55	3677	5104	7570	11990	24240	69400
60	4763	6700	9962	16250	34700	90950
65	5969	8400	12370	19880	-	-
70	7333	9920	14190	22190	-	-

60% -60° 345000

Clark and Putnam, 1949

t	η 10%	20%	30%	40%	50%	60%
50	560	610	700	820	1051	1552
40	666	721	815	960	1260	1855
30	812	867	959	1142	1492	2190
20	1006	1040	1144	1338	1782	2730
10	1318	1357	1451	1681	2265	3380
0	1660	1779	1921	2165	2770	4290
-10	-	2355	2555	2880	3860	6500
-20	-	-	3480	4010	5500	9750
-30	-	-	-	5900	8560	17100
-40	-	-	-	9100	14000	-
-50	-	-	-	16300	-	-
-58	-	-	-	23300	-	-

Wolf and Christofzik, 1956

M	η	M	η
25°			
0.5	900	3.2	1000
1.0	900	4.4	1180
1.8	920	6.7	1500
2.8	980		

Neros and Eversole, 1941

%	σ 15°	25°	50°
0.00	73.51	71.97	68.16
4.86	72.52	71.18	67.60
10.01	71.66	70.34	66.97
20.38	70.46	69.21	66.12
30.36	69.82	68.57	65.66
40.37	69.72	68.49	65.74
53.74	70.33	69.02	66.60
60.70	70.88	69.69	67.40
63.47	70.77	69.73	67.44
67.59	70.67	69.71	67.41
70.43	70.07	69.54	67.26
72.25	69.96	69.01	66.85

Mazzucchelli and Pro, 1926

%	n_D
25°	
5.01	1.33582
10.03	1.33918
14.97	1.34288

Kohner and Grossmann, 1927

wt%	mol%	n_{He}	wt%	mol%	n_{He}
25°					
15.5513	3.15	1.34327	50.4577	15.44	1.38175
16.1457	3.34	.34375	55.856	18.49	.39060
25.2152	5.70	.35138	61.945	22.59	.40129
33.0229	8.12	.35908	66.422	26.17	.40898
44.9864	12.79	.37634	69.655	29.16	.41416

Hantzsch and Dürigen, 1928

%	n_D	%	n_D
20°			
0	1.33300	30.691	1.35793
5.2994	.33644	69.892	.41542
12.265	.34145	84.730	.41437
15.845	.34448	100	.38189 (50°)

Hantzsch and Dürigen, 1929

%	n_D	%	n_D
20°			
2.2130	1.33435	25.332	1.35240
3.9910	.33648	35.9449	.363424
7.6938	.338124	52.927	.38698
13.1740	.34211	58.486	.39641
15.7425	.34420	69.370	.41542

Fajans and Grossmann, 1930

mol%	n_D
25°	
0	1.33253
17.48	.38780
24.86	.40640
29.03	.41400

Linde, 1924

wt%	mol%	κ	wt%	mol%	κ
25°					
10.06	1.96	3610	50.34	15.375	6340
19.57	4.18	5910	57.74	19.67	5070
26.85	6.17	6870	60.20	21.50	4560
31.20	7.51	7280	63.51	23.78	4230
32.67	8.00	7410	66.19	25.98	3780
34.44	8.78	7537	69.84	29.33	3130
36.60	9.37	7543	71.72	31.24	2740
39.54	10.495	7480	74.47	34.33	2188
39.95	10.65	7460	75.70	35.83	2024
45.80	13.20	6980	77.21	37.78	1890
50°					
34.94	8.78	9840	77.32	38.04	3040
74.23	34.05	3420	79.47	41.71	2970

Usanovich and Sumarokova, 1947

mol%	ϰ 20°	ϰ 50°	ϰ 60°
17.3	5000	6618	7333
23.5	3666	5110	5775
29.0	2448	3964	4480
37.4	-	2705	3137
38.1	1566	2744	3051
41.8	-	2551	2903
42.3	-	2514	2818
45.2	-	2540	2879
45.5	-	2550	2896
47.5	-	2508	2875
48.8	-	2484	2818
51.3	-	2550	2876
52.7	-	2572	2960
53.6	-	2628	2950
54.3	-	2654	2973
63.0	-	2501	2826
67.0	-	2185	2596
71.8	-	2189	2627
77.5	1352	1824	2055
84.7	108	1330	1545
88.0	-	1130	-
100.0	91	106	199

mol%	ϰ	mol%	ϰ
	50°		
0.10	384	3.83	6112
0.15	579	4.50	6504
0.42	1400	5.43	6965
0.69	2100	5.83	7000
1.00	2700	6.48	7313
1.49	3527	7.62	7524
1.97	4085	10.10	7828
2.32	4611	10.10	-
2.76	5161	11.00	7653
3.27	5711	12.90	-
3.56	5736		
(1+1)	(2+1)		

Wolf and Christofzik, 1956

M	ϰ	M	ϰ
	25°		
0.2	1600	9.5	4500
1.2	3200	11.4	3200
1.4	4800	68	4400
2.2	6000	78	3200
3.2	7000	91	2300
4.6	7800	95	1200
5.9	7000	97	800
7.3	6000	100	0
8.7	5000		

Berthelot, 1881

mol%	U
	15-40°
0.08	0.993
1.07	.893
4.95	.6705
8.47	.575
13.90	.501

mol% initial	t	Q dil. (for 0.08mol%)
0.25	21	-0.00
0.52	"	-0.025
1.08	"	-0.093
5.00	"	-0.237
7.38	"	+0.048
8.74	"	0.31
10.80	"	0.60
13.90	"	1.23
17.70	"	4.36
20.00	18	5.30
25.9	"	7.37
33.3	"	11.70

Water + Periodic acid (IO_4H)

Gyani and Gyani, 1949

%	f.t.	%	f.t.
65.60	0	66.94	35
66.15	20	67.08	37
66.30	25	67.61	40
66.79	33	68.02	45

Thomsen, 1874

mol%	d	mol%	d
	17°		
0.0	0.9988	1.2	1.1121
0.3	1.0288	2.3	.2165
0.6	1.0570	4.3	.4008

Manchot, Jahrstorfer and Zepter, 1924

%	d
	25°
20.421	1.1740
47.023	1.4066

Water + Nitrous oxide (N_2O)

Villard, 1897

t	p dissoc.	t	p dissoc.
	(6+1)		
-9.1	3.6	+2.4	12.4
6.4	4.8	7.1	21.5
4.7	5.8	8.0	24.0
2.9	7.0	9.5	29.5
-1.3	8.4	10.7	34.7
0	9.7		

Manchot, Jahrstorfer and Zepter, 1924

34.70 vol% f.t. = 25°

Water + Nitrogen tetroxide (N_2O_4)

Lowry and Lemere, 1936

mol%	f.t. ice	f.t. I	f.t. II	sat.t.
0.9	-3.3	-	-	-
2.1	7.5	-	-	-
3.3	12.5	-	-	-
4.6	19.5	-	-	-
6.2	29.3	-	-	-
7.6	39.9	-	-	-
9.5	51.2	-	-	-
11.1	53.0	-	-	-
13.1	55.4	-	-	-
13.9	-	-	-	-10.9
14.8	-	-	-	- 0.1
16.7	32.7	-	-	+10.5 (3+1)
19.7	26.4	-	-	28.9
23.2	23.7	-	-	38.7
28.2	22.5	-47.4	-	47.1
32.1	22.8	-37.0	-46.6	53.3
37.7	-23.9	-30.2	-40.0	58.5
44.6	-	-25.4	-35.5	62.4
52.9	-	-22.1	-31.1	66.5
64.6	-	-18.8	-28.2	66.8
77.1	-	-16.0	-26.1	61.9
86.5	-	-14.2	-24.8	45.7
90.1	-	-13.6	-24.2	+31.8

Water + Nitrous anhydride (N_2O_3)

Lowry and Lemere, 1936

mol%	f.t.	sat.t.	mol%	f.t.	sat.t.
1.14	-2.1	-	22.47	-33.6	+39.0
2.50	5.6	-	22.72	34.3	-
4.00	8.5	-	25.51	34.8	48.2
5.60	13.0	-	30.27	33.4	54.9
7.27	17.8	-	35.78	32.6	53.6
9.17	22.6	-	41.62	32.8	53.3
13.13	33.8	-12.0	48.40	33.7	52.3
15.53	33.1	+3.7	72.40	44.2	-
17.93	33.2	17.3	79.31	45.4	23.5
20.80	-33.3	34.5	85.05	-44.2	+4.5

Water + Nitric anhydride (N_2O_5)
(see also the system: H_2O + NO_3H)

Lloyd and Wyatt, 1955

L %	V %	p	L %	V %	p
		-10°			
89.08	-	11.71	87.63	87.2	6.29
88.75	-	9.17	86.97	86.0	6.44
(88.71)	93.7	(8.80)	86.50	85.5	6.71
88.05	89.6	6.76	85.81	-	6.90
87.63	87.5	6.30			
		0°			
89.68	-	37.83	(88.58)	92.0	(16.2)
(89.63)	97.6	(36.66)	88.64	-	17.1
89.59	-	35.65	(88.58)	91.6	(16.2)
89.58	-	35.49	88.14	90.6	14.64
(89.52)	97.1	(33.44)	88.10	89.8	14.05
89.47	-	31.39	87.85	87.6	13.16
(89.26)	95.9	(26.40)	87.83	-	13.16
89.26	-	26.26	87.75	87.6	13.13
(89.24)	96.0	(25.90)	87.61	87.4	12.98
89.17	-	25.61	87.38	85.5	13.18
(89.12)	96.3	(24.43)	87.31	85.8	13.16
89.08	-	(23.25)	87.10	-	13.36
(88.99)	95.0	21.30	86.57	-	13.58
88.91	-	19.47	86.00	85.5	13.87
(88.89)	94.2	(19.30)	85.72	85.5	13.99
88.66	-	(16.71)			
		10°			
88.02	91.2	30.13	86.51	-	25.65
87.84	88.0	25.84	86.50	86.3	25.66
87.39	87.6	25.87	85.70	85.4	26.26
86.86	86.9	25.40			
		20°			
87.76	92.4	52.5	86.91	86.6	46.8
87.40	88.2	48.1	86.63	86.2	47.0
87.15	87.3	46.6			

N.B. the figures in brackets represent mean values.

Rüdorff, 1862

%	f.t.
2.43	-1.6
6.91	-5.25
9.07	-7.3
10.79	-9.25

Rüdorff, 1872

%	f.t.
3.73	-2.50
4.63	-3.35
6.67	-5.05
9.17	-7.55
11.38	-10.10

Nitric acid (HNO_3) + Nitric anhydride (N_2O_5)

Berl and Saenger, 1930

t	p						
	85.93%	87.64%	88.81%	89.24%	89.67%	90.10%	100%
0.0	15.3	-	19.5	22.9	34.8	50.0	14.0
5.0	21.7	24.2	26.2	34.3	49.8	72.0	19.6
10.0	28.4	31.8	36.8	47.4	71.0	103.8	26.5
15.0	38.3	41.4	51.8	67.2	102.0	157.0	35.5
20.0	51.2	55.5	73.0	96.0	156.7	241.0	47.3
25.0	64.3	75.0	103.0	142.0	226.0	323.0	61.0
30.0	77.3	99.8	178.4	213.7	422.7	464.0	77.4
35.0	95.5	138.0	265.8	-	-	692.0	-
40.0	120.1	197.0	-	-	-	-	-

p	%	p	%	p	%
		0.0°			
15.3	85.93	18.1	88.61	42.6	89.98
17.1	87.44	18.5	88.81	50.0	90.10
17.9	88.22	22.9	89.24		
		5.0°			
21.7	85.93	26.2	88.61	49.8	89.67
24.2	88.22	34.3	89.19	72.0	90.10
		10°			
28.4	85.93	33.5	88.44	87.3	89.98
29.2	87.44	36.8	88.65	103.8	90.10
31.8	88.22	71.0	89.68		
		15°			
38.3	85.93	45.1	88.22	67.2	89.24
39.3	86.89	47.2	88.44	102.0	89.67
41.4	87.64	51.8	88.81	157.0	90.10
		20°			
51.2	85.93	73.0	88.81	156.7	89.67
55.5	87.05	96.0	89.24	241.0	90.10
64.4	88.22				
		25°			
64.3	85.93	79.8	88.22	226.0	89.68
71.0	87.05	103.0	88.81	323.0	90.50
75.0	87.64	142.0	89.24		

Water + Nitric acid (HNO_3)

(see also the system: Water + Nitric anhydride)

Heterogeneous equilibria .

Sapozhnikov, 1904

%	p	%	p
	25°		
65.30	1.90	88.65	29.70
78.10	9.40	92.93	42.60
82.10	16.64	98	42.20

Klemene and Nagel, 1926

N(15°)	p_1	p_2	N(15°)	p_1	p_2
		12.5°			
0.0	10.87	-	12.0	3.37	0.202
0.5	10.64	-	12.5	2.99	0.311
1.0	10.44	-	13.0	2.55	0.447
1.5	10.20	0.0015	13.5	2.12	0.596
2.0	9.99	.0030	14.0	1.70	0.800
2.5	9.70	.0045	14.5	1.50	1.000
3.0	9.43	.0075	15.0	1.22	1.19
3.5	9.15	.0101	15.5	0.91	1.56
4.0	8.86	.0128	16.0	0.60	2.02
4.5	8.51	.0156	16.5	-	2.63
5.0	8.19	.0181	17.0	-	3.39
5.5	7.80	.0210	17.5	-	4.32
6.0	7.50	.0236	18.0	-	5.41
6.5	7.12	.0264	18.5	-	6.60
7.0	6.80	.0296	19.0	-	7.88
7.5	6.50	.0330	19.5	-	9.30
8.0	6.16	.0362	20.0	-	10.80
8.5	5.80	.0391	20.5	-	12.35
9.0	5.49	.0423	21.0	-	14.06
9.5	5.17	.0467	21.5	-	15.90
10.0	4.88	.0526	22.0	-	17.83
10.5	4.51	.0627	22.5	-	19.73
11.0	4.13	.0841	23.0	-	21.63
11.5	3.73	.1260	23.5	-	23.61
			24.0	-	25.69
		30°			
0	31.77	-	8.0	18.09	0.189
0.5	31.30	-	8.5	17.00	.252
1.0	30.72	-	9.0	15.95	.347
1.5	30.11	0.0033	9.5	14.89	.482
2.0	29.42	.0070	10.0	13.88	.641
2.5	28.61	.0119	10.5	12.91	.777
3.0	27.78	.0170	11.0	11.98	.921
3.5	26.91	.0230	11.5	10.99	1.08
4.0	26.00	.0300	12.0	9.89	.26
4.5	25.07	.0380	12.5	8.75	.45
5.0	24.07	.0482	13.0	7.69	.66
5.5	23.10	.0605	13.5	6.63	.91
6.0	22.17	.0750	14.0	5.50	2.21
6.5	21.11	.0926	14.5	4.21	2.62
7.0	20.07	.115	15.0	2.95	3.28
7.5	19.05	.145	15.5	1.55	4.60

Danilov, Matvejev and Buchgalter, 1940

mol%	p	mol%	p
	20°		
71.7	24.0	93.4	40.25
75.4	27.2	95.0	41.70
81.3	31.2	96.6	43.90
86.9	34.8	99.9	45.00
91.5	38.6		

Vandoni and Laudy, 1952

mol %	p	p_1
	20°	
1.5	16.38	-
1.56	-	15.73
1.6	16.00	-
3.0	16.10	-
3.0	16.15	-
3.0	16.08	-
3.2	15.40	-
4.0	16.15	-
4.0	15.8	-
4.0	16.0	-
4.65	14.9	-
4.67	14.8	-
6.79	14.4	-
7.06	14.2	14.1
9.78	-	12.89
9.82	12.50	-

Lloyd and Wyatt, 1955

%	p -10°	p 0°	p 10°	p 20°
72.4	1.10	2.02	3.69	6.46
77.7	1.31	2.77	5.52	10.45
83.3	2.26	4.67	8.89	16.41
87.1	3.40	6.56	12.54	22.09
91.8	4.83	9.82	18.06	32.09
96.3	6.30	12.64	23.35	41.47
99.8	6.97	14.02	26.42	46.96

Potier, 1956

%	mol%	p 0°	p 5°	p 10°	p 15°	p 20°
0.00	0.00	4.579	6.543	9.209	12.79	17.53
10.48	3.12	4.345	6.026	8.66	11.91	16.52
16.14	5.28	4.121	5.875	8.28	11.50	15.82
24.16	8.34	3.724	5.346	7.516	10.59	14.59
32.80	12.16	3.177	4.667	6.531	9.068	12.62
40.00	15.94	2.748	3.926	5.559	7.745	10.74
45.60	19.36	2.449	3.492	4.932	6.823	9.376
54.84	25.74	1.683	2.400	3.389	4.475	6.562
61.12	31.00	1.311	1.910	2.778	3.908	5.470
66.86	36.28	1.143	1.671	2.472	3.508	5.058
70.36	40.20	1.245	1.866	2.686	3.837	5.433
73.72	44.18	1.611	2.317	3.266	4.560	6.314
75.73	47.15	1.871	2.735	3.864	5.420	7.482
79.70	52.72	2.655	3.828	5.433	7.603	10.59
82.68	58.04	3.532	5.105	7.245	10.21	14.16
87.70	67.86	6.472	8.974	12.25	16.60	22.13
89.54	71.80	7.745	10.72	14.42	19.72	26.42
90.20	73.00	7.98	11.12	15.07	20.18	26.92
91.98	77.10	9.009	12.59	17.16	23.17	31.19
92.84	79.90	10.00	13.83	18.84	25.18	33.65
95.46	85.73	11.72	16.03	21.83	29.04	38.82
96.13	87.65	12.13	16.63	22.60	30.13	40.18
97.11	90.56	12.56	17.54	23.71	31.55	42.07
98.13	93.71	13.55	18.54	25.01	33.57	44.88
99.12	97.02	13.84	19.10	25.76	34.53	46.14
99.72	99.03	14.03	19.41	26.30	35.24	46.99
100.00	100.00	14.15	19.80	26.55	35.50	47.40

mol%	p_2	p_1	p_2	p_1
	20°		0°	
0	0	17.53	0	4.58
5	0	15.78	0	4.18
10	0	13.66	0	3.52
15	0.038	11.302	0	2.90
20	0.13	8.84	0.022	2.238
25	0.361	6.539	0.066	1.658
30	0.977	4.803	0.156	1.166
32	1.080	4.18	0.216	0.994
35	1.794	3.216	0.387	0.713
40	2.99	2.35	0.700	0.530
45	4.97	1.63	1.336	0.34
50	7.70	1.12	1.94	0.22
55	11.09	0.76	2.915	0.145
60	15.01	0.55	4.13	0.09
65	19.19	0.43	5.62	0
70	24.03	0.27	7.08	0
75	29.10	0	8.57	0
80	33.60	0	10.00	0
85	38.15	0	11.46	0
90	41.95	0	12.62	0
95	45.1	0	13.67	0
100	47.4	0	14.15	0

Küster and Kremann, 1904

% L	% V	% L	% V
-15°			
61.76	47.0	70.63	86.5
63.64	54.0	75.74	93.4
65.39	62.9	77.78	94.0
66.11	66.0		

Pascal and Garnier, 1921

% L	% V	p	b.t.
23.8	1.40	190	65.5
24.0	1.71	237	72
24.6	1.80	465	93
24.0	2.20	566	100
24.2	2.16	760	106.5
25.2	1.60	870	115.5
36.0	5.2	40	40.2
33.1	5.0	116	59.0
33.2	4.95	318	87.5
34.0	5.1	458	97.5
33.0	5.3	570	104.0
33.0	4.8	680	108.5
33.0	5.9	760	112
55.0	21.2	40	45.8
50.0	20.0	116	66.5
49.2	18.5	317	95.0
50.5	21.2	458	105.5
49.8	16.0	570	111.0
49.8	19.85	760	118.5
50.2	15.2	870	124.2
61.0	50.02	40	52
60.65	42.0	116	70.2
61.0	45.0	317	98.5
61.2	50.2	353	104
60.98	50.4	463	109.5
60.85	50.5	517	112.5
61.2	51.0	553	113.5
61.2	50.1	622	115.5
60.95	50.02	670	117.5
61.0	45.2	725	120.5
61.0	41.0	763	121.6
64.96	55	40	52.6
66.20	65.9	116	72.0
66.4	66.4	116	72.1
64.0	50.0	324	102
67.6	66.9	458	109
65.6	64.95	465	110.1
68.2	68.90	574	113.9
68.4	68.4	760.2	121.9
64.5	58.9	870	126.0
66.62	65.1	870	126.3
65.19	65.1	1010	130.6
70.2	85.0	40	52
70.0	86.2	116	71.5
70.2	79.2	325	98.5
69.9	80.2	408	104
69.5	80.0	458	108
69.9	77.2	570	113.5
70.1	81.0	754	121
74.72	94.80	40	47.6
74.52	90.77	116	67.0
75.52	89.57	325	93.0
74.62	86.56	408	100.0
74.02	94.56	540	110.0
75.12	91.50	760	118.0
79.81	97.78	40	43
81.71	97.60	116	56
81.71	97.98	458	91
80.70	96.58	570	98
79.73	96.70	760	112
80.40	95.60	870	120.5
84.45	98.35	40	38
84.45	98.75	116	52.5
84.45	98.45	345	78
84.65	98.65	458	84
84.65	98.15	570	92
84.65	97.45	760	99
89.52	99.84	40	32.5
90.05	99.25	116	47.5
90.92	99.59	315	63
90.59	99.66	458	75
90.69	99.63	570	80.3
89.65	99.41	760	90.5
81.6	98.50	870	100
94.52	99.43	40	29
94.92	99.65	116	43.5
94.67	99.62	458	69
95.38	99.63	760	85.5
95.0	99.69	870	90.5
97.62	99.47	40	27.5
97.50	99.33	116	41.5
97.64	99.47	315	59.0

p	b.t.	p	b.t.
100%			
23	20	200	50
38	26	350	62
50	29	530	74
112	40	540	75

Sproesser and Taylor, 1921

% L	% V	b.t.	p
21.25	0	0	3.8
20.65	0.21	35	36.8
"	.13	50	79.9
"	.19	65	155.6
"	.42	80	293.9
40.82	2.02	0	2.5
40.03	4.38	35.1	26.1
"	3.81	50	55.6
"	5.11	65	117.6
"	6.40	80	224.2
56.26	22.49	0	1.4
56.16	33.12	35	17.0
"	33.87	50	39.4
"	33.69	64.9	84.6
"	34.39	80	182.5
68.64	81.03	0	1.1
68.42	69.15	35.3	15.9
"	69.06	50.1	35.7
"	68.76	74	118.3
"	68.32	80.1	152.8
79.07	94.87	0	2.7
80.23	88.56	35	22.1
"	89.03	52	50.3
"	88.49	65	90.0
"	87.13	82.1	195.2
88.24	97.75	0	7.8
93.63	98.27	35.8	69.7
"	96.55	50	136.2

Berl and Samtleben, 1922

% L	% V	b.t.	% L	% V	b.t.
10.45	0.46	102.5	69.44	71.12	120.8
20.58	1.26	104.5	70.10	72.56	120.7
31.75	4.94	108.5	73.26	79.63	119.5
37.99	9.20	110.4	78.92	88.54	115.4
43.50	14.86	113.0	81.52	92.08	112.0
47.77	21.71	115.2	82.20	92.87	111.1
53.96	33.51	117.5	84.36	95.72	107.0
56.60	39.37	118.6	88.66	97.16	101.1
61.47	51.34	120.1	90.02	97.34	99.0
62.64	54.46	120.4	90.27	97.68	98.5
65.18	60.62	120.5	93.93	98.52	91.4
65.67	62.11	120.8	97.44	99.07	86.3
67.43	65.97	120.8	99.04	99.24	84.0
67.89	67.84	120.8	99.23	99.12	83.8
68.00	68.00	121.0			

Carpenter and Babor, 1924

% L	% V	% L	% V
	at b.t.		
5.00	0.048	52.5	31.1
10.00	.200	55.0	35.5
12.50	.35	57.5	41.7
15.00	.55	60.0	47.8
17.50	.75	62.5	54.6
20.0	1.05	65.0	60.8
22.5	1.45	67.5	66.8
25.0	2.20	68.0	68.0
27.5	3.00	70.0	73.22
30.0	4.10	74.0	82.14
32.5	5.60	78.0	88.89
35.0	7.30	80.0	91.34
37.5	9.40	84.0	95.10
40.0	12.00	88.0	97.69
42.5	14.90	90.0	98.53
45.0	18.00	92.0	99.00
47.5	22.20	100.0	100.00
50.0	26.50		

Wilson and Miles, 1940

% L	% V	p	p_1	p_2
		20°		
49.80	13.88	8.1	7.75	0.355
-	40.70	7.7	-	-
60.00	40.91	5.8	4.85	0.95
69.64	77.76	5.8	2.90	2.90
-	77.54	5.8	2.92	2.88
69.80	-	5.95	-	-
76.62	92.48	8.82	1.95	6.87
78.80	94.59	11.50	.92	9.58
79.60	97.10	10.81	.02	9.79
81.60	97.51	13.60	.11	12.49
82.02	98.36	13.90	0.77	13.13
86.13	98.90	19.05	.71	18.34
89.85	99.45	26.20	.50	25.70
91.45	99.66	29.55	.35	29.11
91.81	99.65	30.30	.37	29.94
94.49	99.81	36.32	.24	36.08
96.58	99.92	41.70	.11	41.59
97.43	99.75	41.70	-	-
99.78	-	47.80	-	-
99.80	-	47.80	-	-
99.90	-	47.90	-	-

Potier, 1951

% L	% V	b.t.	% L	% V	b.t.
19.6	1.2	104	81.5	95.5	111.5
30.0	4.2	107	82.5	95.7	108.8
37.0	7.4	109.5	83.3	97.4	108
43.4	13.6	112	84.3	97.4	106
51.8	28.6	115.3	86.6	98.4	102
60.0	45.1	118	89.1	98.9	97.5
64.0	56.7	119	89.9	99.55	95.8
68.0	68.0	120	90.57	99.6	95.5
74.1	81.9	118.5	91.5	99.5	92
75.9	86.7	117	93.4	99.52	91
78.8	91.8	115	95.3	99.55	87.2
78.8	90.7	114.8-115	96.19	99.65	86.9
79.8	91.9	113	99.45	99.9	82.8
80.4	92.96	112.6			

Vandoni and Laudy, 1952

mol% L	mol% V	p	p_1	p_2
		20°		
11.12	0	12.6	12.38	-
11.70	-	12.1	-	-
16.04	0.7	10.2	10.14	0.07
16.36	0.8	10.1	9.83	.07
19.55	1.8	-	7.90	.16
22.27	3.6	-	6.93	.26
22.53	3.6	7.4	7.03	.26
25.74	7.4	-	5.96	.48
28.56	12.5	-	5.08	.72
30.32	-	5.6	-	-
30.60	17.1	5.4	4.32	0.90
39.50	-	5.8	-	-
40.73	53.5	5.7	2.47	2.87
44.80	73.5	-	1.80	4.96
45.40	71.5	-	1.94	4.86
52.30	-	11.2	-	-
53.16	93.5	11	-	-
53.86	92.96	-	0.70	9.40
61.80	97.5	19.5	-	-
62.60	-	20.9	-	-
64.50	-	21.7	-	-
72.08	99.2	-	0.22	27.32
72.30	100.00	27.0	0.00	26.40
72.40	-	26.9	-	-
86.10	-	38.8	-	-
100.00	-	46.6	-	-

Mc Kay, 1956 (fig.)

m	a	m	a
	25°		
0	1	4	1.2
0.5	0.7	5	1.4
1	0.7	6	1.8
1.7	0.78	7	2.2
2	0.8	7.8	2.7
3	1	6.7	3

a= *activity coefficient*

Robinson and Stokes, 1949

m	osmotic coefficient	m	osmotic coefficient
	25°		
0.1	0.940	1.0	0.979
.2	.935	.2	.994
.3	.936	.4	1.009
.4	.940	.6	.025
.5	.944	.8	.042
.6	.950	2.0	.060
.7	.957	2.5	.106
.8	.964	3.0	.154
.9	.971		

Creighton and Githens, 1915

%	b.t.	%	b.t.
760 mm		360 mm	
19.37	103.56	20.30	84.7
30.43	108.08	32.05	87.2
41.38	112.59	42.75	91.1
51.63	116.85	53.14	95.4
56.01	118.88	54.67	95.8
59.77	120.06	57.72	97.2
63.89	121.27	61.26	98.7
65.17	121.66	67.25	100.0
67.74	121.67	68.46	99.8
68.18	121.79	68.91	99.9
69.24	121.80	69.61	99.9
71.10	121.60	74.39	99.6
73.56	120.75	76.92	97.4
80.50	115.45	80.21	94.0
85.51	108.12	84.41	89.1
90.06	102.03	91.31	79.5
95.45	95.42	99.79	63.4
250 mm		110 mm	
19.51	74.5	23.61	57.5
30.02	76.6	34.54	60.7
45.42	82	40.44	63.6
56.91	86.4	51.74	68.3
65.34	89.4	54.42	69.4
67.91	89.9	60.21	71.6
68.72	89.9	66.78	74.3
71.24	89.6	68.32	73.9
79.50	83.1	68.53	73.6
87.93	70.4	69.42	73.8
90.04	69.5	73.12	73.1
95.76	59.1	80.61	66.8
99.79	53.5	87.62	56.5
		94.31	45.0
		99.75	35.6

Az %	b.t.	p
66.18	121.70	760
67.15	99.9	360
66.80	74.2	110

Freezing curve .

Jones and Getman, 1902, 1903 and 1904

M	f.t.	M	f.t.
0.25	-0.875	2.0	-8.347
0.50	-1.822	2.5	-11.046
1.0	-3.796	3.0	-13.908
1.5	-5.938		

Küster and Kremann, 1904

%	f.t.	%	f.t.
2.4	-1.3	59.8	-22.1
6.4	3.8	61.8	23.8
14.0	10.3	63.6	26.6
17.3	13.0	64.7	28.6
19.6	15.7	68.0	35.4
22.8	20.6	70.0	40.5
27.0	27.1	70.5	42.0
29.7	35.0	71.0	41.7
30.7	37.7	71.7	40.7
32.3	42.4	72.2	40.1
32.5	42.6	73.7	39.4
32.8	43.0	74.6	38.6
33.9	40.6	75.5	38.2
36.0	37.2	77.0	37.9
39.6	30.6	78.0	38.2
39.7	29.9	78.5	38.2
43.6	26.2	81.4	39.1
46.0	22.6	82.0	39.3
46.3	22.9	84.7	44.4
50.7	19.0	86.0	48.0
51.6	18.8	87.0	52.0
51.6	18.7	88.0	55.3
52.6	18.8	89.2	62.3
53.8	18.5	89.5	64.1
54.0	18.5	90.5	64.5
55.4	18.5	92.8	56.8
55.6	18.5	93.3	55.3
56.3	18.9	94.3	54.1
56.7	19.0	94.9	49.7
56.9	19.0	97.2	44.4
57.2	-19.0	98.5	42.7
		98.8	42.3
		100.0	- 41.2

Jones, 1904, Jones and Bassett, 1905

M	f.t.	M	f.t.
	0°		
0.05	-0.175	0.80	-3.00
.10	.350	0.90	.39
.20	.696	1.00	.806
.30	-1.050	2.00	-8.410
.40	.415	3.00	-13.908
.50	.790	4.00	-23.000
.60	-2.20	5.00	-32.500
.70	-2.59	6.00	-42.000

Johnston, 1906

%	f.t.	%	f.t.
1.43	-0.98	17.62	-30.28
3.08	-1.86	29.23	-57.85
5.08	-4.50	40.05	-71.50
10.55	-11.00	49.70	-52.00

Abel, Redlich and Leugyel, 1929

m	f.t.	m	f.t.
0.00526	- 0.0194	0.34887	-1.2127
.00528	.0194	.34927	.2138
.00777	.0282	.36413	.2639
.00788	.0284	.36418	.2646
.01402	.0506	.36408	.2650
.01404	.0506	.39968	.3907
.01566	.0559	.65212	2.2288
.01566	.0560	1.0679	3.870
.02289	.0816	.2086	4.416
.02301	.0816	.6819	6.356
.02869	.1020	.8129	6.903
.02882	.1020	.8297	6.979
.03784	.1338	2.2090	8.659
.04605	.1619	.3634	9.366
.10090	.3522	.7410	11.147
.10923	.3814	3.0847	12.866
.10933	.3820	.5744	15.43
.16122	.5606	.6112	15.605
.16150	.5615	.6513	15.83
.26601	.9222	4.009	-17.795
.34296	-1.1896		

J and A Potier, 1956 (fig.)

mol%	f.t.	E	tr.t.	f.t. II
100	-41.5	-	-	-
95	43	-	-57.4	-
90	45.5	-	"	-
80	55	-59	"	-
78.1	57.4	"	"	-
75	57.2	"	-	-62
71.8	58	"	-	-66 E
70	58.5	"	-	-62
68.4	59	"	-	-59
65	51.5	"	-	-
60	42.5	"	-	-
55	39	-	-	-
50	38	-	-	-

Properties of phases.

Density .

Ure, 1818

%	d	%	d
	15.55°		
0	0.999	50	1.314
10	1.059	60	.369
15	.088	70	.419
20	.119	80	.459
30	.184	90	.490
40	.251		

Kremers, 1861

t	$d^{19.5}$			
0	1.07388	1.13586	1.19047	1.24322
19.5	.06680	.12500	.17650	.22640
40	.05711	.11229	.16091	.20792
60	.04590	.09864	.14476	.18901
80	.03304	.08377	.12752	.16794
100	.01902	.06788	.10921	.14818
0	1.27519	1.32578	1.37473	1.40672
19.5	.25640	.30310	.35000	.38020
40	.23616	.27971	.32356	.35181
60	.21540	.25617	.29710	.32354
80	.19371	.23164	.26968	.29434
100	.17112	.20622	.24155	.26445

van der Willigen, 1869

50.48 % 18.75° d = 1.35946

Thomsen, 1871

mol%	d	mol%	d
	18°		
0	0.9986	2	1.0360
0.5	1.0094	4.8	.0851
1	1.0185	9	.1542

Kolb, 1866, 1867 and 1872

%	d 0°	d 15°	%	d 0°	d 15°
100.00	1.559	1.530	58.88	1.387	1.368
99.84	.559	.530	58.00	.382	.363
99.72	.558	.530	57.00	.376	.358
99.52	.557	.529	56.10	.371	.353
97.89	.551	.523	55.00	.365	.346
97.00	.548	.520	54.00	.359	.341
96.00	.544	.516	53.81	.358	.339
95.27	.542	.514	53.00	.353	.335
94.00	.537	.509	52.33	.349	.331
93.01	.533	.506	50.99	.341	.323
92.00	.529	.503	49.97	.334	.317
91.00	.526	.499	49.00	.328	.312
90.00	.522	.495	48.00	.321	.304
89.56	.521	.494	47.18	.315	.298
88.00	.514	.488	46.64	.312	.295
87.45	.513	.486	45.00	.300	.284
86.17	.507	.482	43.53	.291	.274
85.00	.503	.476	42.00	.280	.264
84.00	.499	.474	41.00	.274	.257
83.00	.495	.470	40.00	.267	.251
82.00	.492	.467	39.00	.260	.244
80.96	.488	.463	37.95	.253	.237
80.00	.484	.460	36.00	.240	.225
79.00	.481	.456	35.00	.234	.218
77.66	.476	.451	33.86	.226	.211
76.00	.469	.445	32.00	.214	.198
75.00	.465	.442	31.00	.207	.192
74.01	.462	.438	30.00	.200	.185
73.00	.457	.435	29.00	.194	.179
72.39	.455	.432	28.00	.187	.172
71.24	.450	.429	27.00	.180	.166
69.96	.444	.423	25.71	.171	.157
69.20	.441	.419	23.00	.153	.138
68.00	.435	.414	20.00	.132	.120
67.00	.430	.410	17.47	.115	.105
66.00	.425	.405	15.00	.099	.089
65.07	.420	.400	13.00	.085	.077
64.00	.415	.395	11.41	.075	.067
63.59	.413	.393	7.72	.050	.045
62.00	.404	.386	4.00	.026	.022
61.21	.400	.381	2.00	.013	.010
60.00	.393	.374	0.00	.000	0.999
59.59	.391	.372			

Kohlrausch and Grotrian, 1875

%	d	%	d
	18°		
6.2	1.0346	37.2	1.2372
12.4	.0717	43.4	.2786
18.6	.1105	49.6	.3190
29.8	.1525	55.8	.3560
31.0	.1946	62.0	.3871

Hager, 1876

%	d	%	d
	17.5°		
0	0.999	58.3	1.359
11.7	1.067	70.0	.415
17.5	.103	81.7	.463
23.3	.139	93.3	.498
35.0	.215	99.2	.512
46.7	.291		

Grotrian, 1877

%	t	d	t	d	t	d
6.03	9.45	1.0335	20.82	1.0312	29.26	1.0279
12.80	9.62	.0741	20.41	.0701	30.08	.0655
19.59	8.46	.1175	19.71	.1121	30.01	.1058
25.93	7.94	.1606	19.15	.1537	27.62	.1479
32.93	10.34	.2051	18.36	.1993	30.61	.1889
38.83	9.37	.2460	18.88	.2777	29.79	.2278

Le Blanc, 1889

%	d
20°	
0	0.99823
14.09	1.07810
28.66	.17217
40.52	.25067
69.18	.41196

Lunge and Rey, 1891

%	d	Dv.10⁵	%	d	Dv.10⁵
		15°			
0.	0.99913	-	56.60	1.35452	116
1.06	1.00508	14	60.37	.37536	127
5.35	.02900	23	64.27	.39511	134
9.85	.05536	32	68.15	.41271	138
13.94	.07984	41	72.86	.43274	141
18.16	.10647	47	74.79	.44041	145
23.71	.14252	58	79.76	.45929	146
26.52	.16090	64	83.55	.47220	145
31.68	.19528	73	87.93	.48568	150
34.71	.21693	79	91.56	.49491	155
39.37	.24700	85	95.90	.50371	165
43.47	.27370	92	97.76	.50857	165
48.38	.30571	103	98.86	.51370	170
52.35	.32985	110	99.70	.52040	172

Squires, 1891

%	d	%	d
	15°		
1	1.00581	26	1.15869
2	.01136	27	.16660
3	.01713	28	.17371
4	.02286	29	.18073
5	.02851	30	.18830
6	.03439	31	.19552
7	.04019	32	.20276
8	.04592	33	.20635
9	.05234	34	.21300
10	.05746	35	.22013
11	.06330	36	.22675
12	.06951	37	.23347
13	.07581	38	.23980
14	.08126	39	.24510
15	.08843	40	.25235
16	.09500	41	.25850
17	.10102	42	.26475
18	.10725	43	.27125
19	.11321	44	.27785
20	.12024	45	.28450
21	.12714	46	.29110
22	.13349	47	.29780
23	.13890	48	.30443
24	.14460	49	.31101
25	.15164	50	.31722

Perkin , 1893

%	d	%	d
	15°		
0	0.9991	32.36	1.2000
22.54	1.1349	57.44	.3541
26.81	1.1655	99.45	.5178

Le Blanc and Rohland, 1896

%	d
20°	
0	0.9982
8.04	1.0425
24.40	1.1434
37.78	1.2318
70.80	1.3983

Veley and Manley, 1903

%	d 4°	d 14.2°	d 24.2°
78.22	1.47129	1.45504	1.43964
79.14	-	.46011	.44372
79.59	1.47496	-	-
81.97	.48391	1.46680	1.45092
84.90	.49495	-	-
85.21	.49581	-	-
85.80	-	1.47826	1.46224
87.55	1.50211	-	-
87.90	-	1.48491	1.46891
89.73	1.50898	.49125	-
92.34	.51804	.49968	1.48264
94.04	.51949	.50149	.48516
95.62	.52192	.50358	.48677
96.64	.52510	.50632	.48887
97.33	-	.50911	.49137
98.07	1.53212	.51298	.49543
99.97	1.54212	.52236	.50394

Küster and Kremann, 1904

%	d	%	d
	15°		
0	1.000	65.0	1.398
10.0	.056	70.0	.421
20.0	.118	75.0	.441
30.0	.184	77.0	.449
40.0	.252	79.0	.457
45.0	.283	82.0	.467
50.0	.316	85.0	.477
54.0	.341	89.4	.490
56.0	.352	95.6	.503
60.0	.378	98.5	.512

Sapozhnikov, 1904

%	d	%	d
	15°		
65.30	1.400	88.65	1.487
78.10	.453	92.93	.497
82.10	.462	98	.510

Zecchini, 1905

%	t	d	%	t	d
0	20	0.99823	12.0130	22.2	1.06442
2.8152	21.5	1.01325	47.0966	19.1	.29008
5.5283	21.6	.02819	47.1436	20.0	.28908
5.5270	21.2	.02827	99.3114	23.7	.51325
12.2621	22.2	.06442			

Winteler, 1905

%	d	%	d
	15°		
86.3	1.485	93.6	1.505
88.2	.490	95.6	.510
90.2	.495	97.3	.515
91.8	.500	99.7	.520

Ferguson, 1905

%	d	%	d
	15.6°		
0	0.9991	77.15	1.4493
14.49	1.0834	78.79	.4550
18.45	.1085	82.89	.4693
27.15	.1649	88.32	.4858
33.80	.2098	91.40	.4936
41.79	.2631	91.91	.4948
49.69	.3132	94.58	.5000
60.45	.3747	95.64	.5023
74.82	.4391	95.80	.5030
76.57	.4457		

Chéneveau, 1907

%	d	%	d
	18°		
0	0.9986	14.83	1.0837
5.21	1.0280	19.27	.1113
10.15	.0560	23.51	.1389
12.52	.0699		

Rabinowitsch, 1921

%	d	%	d
	18°		
62.0	1.3871	24.8	1.1525
55.8	.3560	18.6	.1105
49.6	.3190	12.4	.0717
43.4	.2786	6.2	.0346
37.2	.2372	0.0	0.9
31.0	.1946		

Bingham and Stone, 1923

%	d 10°	d 20°	%	d 10°	d 20°
12.66	1.0739	1.0698	69.84	1.4275	1.4131
25.28	.1555	.1492	77.25	.4612	.4451
38.01	.2427	.2337	88.32	.4958	.4793
52.10	.3339	.3222	99.24	.5306	.5108

%	d	%	d
	40°		
12.65	1.0603	62.66	1.3480
25.18	1.1355	69.86	.3835
52.13	1.2982	88.34	.4468

Carstens, 1924

%	d	π	%	d	π
		20°			
0	0.9982	49.1	42.06	1.2679	39.4
4.21	1.0209	48.2	45.82	.2890	39.0
8.84	.0455	47.2	54.74	.3482	39.6
17.73	.1018	44.7	63.29	.3942	41.1
31.74	.1974	40.9			

Manchot, Jahrstorfer and Zepter, 1924

%	d
25°	
6.932	1.0351
14.242	.0731
22.938	.1191

Decker, 1926

%	d
18.3°	
6.5	1.035
31.7	.195
52.0	.321

Hantzsch and Dürigen, 1928

wt%	mol%	d	wt%	mol%	d
		20°			
2.2793	0.7	1.00653	11.329	3.5	1.0575
3.0830	-	.01085	18.930	6.2	.1047
3.3752	-	.01236	25.980	9.1	.1489
3.3870	-	.01254	41.150	16.7	.2483
3.7388	-	.01436	64.820	34.5	.3843
3.7447	1.1	.01451	69.333	39.2	.41092
4.1960	1.2	.01696	79.829	53.1	.44221
4.7623	1.4	.02010			

Lühdemann, 1935

mol%	d	mol%	d
	25°		
0	0.99707	31.708	1.36918
1.835	1.03023	38.223	.39918
4.187	.07114	44.976	.42207
6.832	.11504	52.831	.44250
9.542	.15676	65.216	.46528
14.661	.22368	79.709	.48101
19.761	.28147	99.885	.50269
25.607	.33073		

Tollert, 1939

N	d	N	d
	20°		
0.00574	0.998343	0.579	1.01762
.0115	.998547	1.450	.04673
.0200	.999030	2.900	.09433
.116	1.002118	5.806	.18555

Guillaume, 1946

%	d	%	d
	20°		
4.72	1.0259	17.84	1.1035
7.81	.0436	20.99	.1227
10.00	.0563	27.80	.1674
12.67	.0721	39.28	.2437
15.94	.0915		

Chanukvadze, 1947

%	d 0°	10°	20°	30°
7.82	1.069	1.064	1.059	1.053
10.52	.066	.062	.057	.052
15.29	.100	.093	.086	.073
18.79	.138	.130	.121	.113
22.99	.169	.162	.155	.149
25.49	.172	.166	.159	.152
27.70	.199	.192	.184	.177
33.87	.240	.232	.223	.215
35.46	.230	.224	.212	.201
41.30	.243	.236	.227	.218
49.73	.373	.364	.355	.347
53.86	.388	.380	.371	.363
57.50	.354	.332	.328	.317
61.10	.385	.374	.367	.358
64.03	.392	.387	.382	.374
72.30	.425	.416	.400	.395
79.09	.436	.418	.400	.396
83.52	.439	.426	.420	.404
90.18	.468	.450	.436	.421
99.50	.544	.528	.508	.493

Potier, 1956

%	d 15°	%	d 15°
100	1.5241	98.52	1.5122
99.81	.5216	98.38	.5112
99.67	.5200	98.13	.5100
99.66	.5199	97.86	.5089
99.43	.5176	97.36	.5075
99.07	.5152	95.91	.5038
98.74	.5129		

Küster and Kremann, 1904

%	Dv . 10^3 15-30°	0-15°	-15-0°
25.0	8.3	7.5	6.8
35.0	9.2	8.6	8.4
45.0	11.6	11.1	10.6
50.0	13.1	12.4	11.9
54.0	12.7	12.3	11.9
60.0	13.5	13.4	13.2
63.6	14.2	14.0	14.0
70.0	15.3	14.4	14.6
75.0	15.6	15.0	14.0
77.0	-	14.9	-
77.77	15.3	14.9	13.3
80.0	15.7	15.0	14.2
89.4	16.1	15.4	14.9

Mikhailov and Shutilov, 1956 (fig.)

%	π 20°	30°	40°	60°	80°
0	45.5	44	43	42.5	42.2
14.5	41.5	40.8	40.2	40.2	41.5
30	35.5	36.5	37	38	40
45	32	33.2	34.1	36.5	39.4
61.0	31	32.2	34	37	41.8

Schmidt, 1859

%	t	π	%	t	π
9.3	16.1	44.8	48.3	14.5	31.8
13.6	15.3	41.7	48.3	14.6	31.6
13.6	15.9	42.7	65.3	14.7	27.7
19.7	16.2	41.1	65.3	16	29.1

Viscosity and surface tension .

Grotrian, 1877

%	η 10°	20°	30°
0	1305	1005	802
6.03	1309	1042	840
12.80	1411	1072	880
19.59	1480	1124	950
25.93	1581	1275	1103
32.93	1719	1351	1158
38.83	1929	1550	1314

Wagner, 1883

%	η (water°=1) 15°	25°	35°	45°
8.37	0.6641	0.5483	0.4538	0.3759
18.20	.6955	.5729	.4795	.4068
28.31	.8035	.6547	.5495	.4625

Pagliani and Oddone, 1886

%	η 0°	10°	%	η 0°	10°
0	1775	1309	66.60	3475	2584
53.87	2945	2324	67.82	3422	2579
58.10	3295	2470	71.24	3288	2465
61.56	3459	2604	72.85	3276	2456
64.30	3560	2676	100.00	2275	1770

Küster and Kremann, 1904

%	η (H_2O at 0°=1) +15°	η (H_2O at 0°=1) -15°	%	η (H_2O at 0°=1) +15°	η (H_2O at 0°=1) -15°
0.0	0.667	-	65.0	1.300	3.304
10.0	.655	-	70.0	.277	3.268
20.0	.716	1.457	75.0	.205	2.767
30.0	.822	.635	77.0	.165	2.664
40.0	.962	.986	79.0	.119	2.503
45.0	1.051	2.209	82.0	.036	2.240
50.0	.144	.369	85.0	0.948	1.955
54.0	.223	.803	89.4	.797	1.487
56.0	.250	.915	95.6	.594	0.928
60.0	.284	3.179	98.5	.548	0.833

Bingham and Stone, 1923

%	η 10°	η 20°	%	η 10°	η 20°
12.63	1329	1058	62.61	2647	2043
12.66	1329	1058	69.89	2611	2039
25.29	1498	1057	69.84	2609	1962.6
25.28	1500	1210	77.23	2489.5	1952.4
38.01	1843	1210	77.25	2487	1451
38.07	1842	1509	88.36	1791.8	1451.9
52.19	2390	1509	88.32	1789.8	913.3
52.10	2390	1882	99.13	1070.9	913.3
62.60	2644	1883	99.24	1069.7	

%	η 40°	%	η 40°
12.65	724.1	69.86	1356
25.28	848.3	77.24	1312
38.05	1033	88.34	1025.3
52.13	1286	99.19	698.3
62.66	1369		

Rhodes and Hodge, 1929 (fig.)

%	η 0°	η 25°	η 50°	η 75°
0	1800	850	550	400
10	1700	900	650	450
20	1800	1050	700	500
30	2100	1200	800	600
40	2400	1400	900	650
50	3000	1650	1100	750
60	3500	1800	1200	755
65	3600	1850	1205	800
70	3400	1800	1200	755
80	2900	1600	1000	700
90	1900	1150	750	600
100	1100	750	550	400

Moles and Pérez-Vitoria, 1932

%	η (water=1) 25°	%	η (water=1) 25°
20.23	1.0375	50.71	1.3812
28.00	.1000	58.60	.4572
35.28	.1875	65.30	.4625
43.32	.2937		

Tollert, 1939

N	η 20°	N	η 20°
0.00574	1004.9	0.579	1014.3
.01150	1004.7	1.450	1032.7
.02000	1005.4	2.900	1094.8
.11600	1006.4	5.806	1317.1

Chanukvadze, 1947

%	η 0°	η 10°	η 20°	η 30°	η 40°
7.82	1620	1350	1170	870	750
10.52	-	1380	1250	870	749
15.29	1680	1380	1210	880	760
18.79	1770	1420	1190	977	783
22.99	1940	1520	1240	1020	885
25.49	1970	1540	1240	1040	900
27.70	2080	1630	1316	1080	940
33.87	2270	1730	1370	1140	990
35.46	2340	1800	1480	1250	-
41.30	2520	1950	1540	1270	1080
49.73	3070	2300	1690	1540	1205
53.86	3220	2380	1940	1660	1290
57.50	3280	2470	1950	1620	1305
61.10	3260	2490	2030	1640	1340
64.03	3180	2480	2004	1650	1280
72.30	3050	2880	2010	1630	1270
79.09	2810	2520	1630	1370	1140
83.52	2580	2030	1450	1160	1000
90.18	2170	1730	1380	1060	947
99.50	1180	947	836	753	684

Forch, 1899

M	σ	τ.10⁵	M	σ	τ.10⁵
0.417	-	158	1.40	-	170
.417	72.48	-	1.40	71.40	-
.834	71.36	-	2.32	70.65	-
			6.99	66.22	-

Whatmough, 1902

%	σ	%	σ	%	σ
		18°			
0	74.16	15	72.79	40	69.00
2.5	74.53	20	72.17	45	67.86
5.0	74.19	25	71.54	50	66.13
7.5	73.76	30	70.84	60	62.02
10.0	73.42	35	70.01		

Optical and electrical properties

van der Willigen, 1869

spectrum lines	n	spectrum lines	n
	50.48%	(18.75°)	
A	1.39558	F	1.40857
a	.39681	G	.41179
B	.39782	G	.41440
C	.39893	H	.41550
D	.40181	H	.41737
F	.40548	H	.41961
b	.40618		

Le Blanc, 1889

%	n_D	%	n_D
	20°		
0	1.33325	40.52	1.38683
14.09	.35160	69.18	.40378
28.66	.37222		

Le Blanc and Rohland, 1896

%	n_D	%	n_D
	20°		
0	1.3333	37.78	1.3832
8.04	.3432	70.00	.4034
24.40	.3657		

Veley and Manley, 1901

%	n_D	$\tau.10^6$	%	n_D	$\tau.10^6$
		14°			
2.19	1.336208	95	21.66	1.363091	190
3.85	.338434	94	25.07	.365152	217
6.76	.342298	108	29.40	.374225	231
9.29	.345824	122	32.60	.377798	267
11.88	.349371	128	34.26	.380354	280
16.11	.355107	156	36.68	.383039	279
18.27	.358541	177	39.11	.386262	292

Wagner, 1903

c	n_D	c	n_D
	17.5°		
0	1.33320	13.127	1.34947
0.303	.33358	13.435	.34984
0.606	.33399	13.743	.35021
0.909	.33435	14.051	.35058
1.212	.33474	14.359	.35095
1.515	.33513	14.667	.35132
1.819	.33551	14.976	.35165
2.122	.33590	15.285	.35205
2.729	.33628	15.594	.35242
3.033	.33667	15.903	.35279
3.337	.33705	16.212	.35316
3.641	.33743	16.521	.35352
3.945	.33781	16.830	.35388
4.249	.33820	17.139	.35425
4.554	.33858	17.448	.35461
4.858	.33896	17.758	.35497
5.163	.33934	18.068	.35533
5.468	.34010	18.378	.35569
5.773	.34048	18.688	.35606
7.078	.34086	18.998	.35642
6.383	.34124	19.008	.35678
6.688	.34199	19.619	.35714
6.993	.34237	19.930	.35750
7.299	.34275	20.240	.35786
7.605	.34313	20.550	.35822
7.911	.34350	20.861	.35858
8.217	.34388	21.172	.35894
8.523	.34426	21.483	.35930
9.135	.34463	21.794	.35966
9.441	.34500	22.105	.36002
9.747	.34537	22.416	.36038
10.054	.34575	22.728	.36074
10.361	.34612	23.040	.36109
10.668	.34650	23.352	.36145
10.975	.34682	23.664	.36181
11.282	.34724	23.977	.36217
11.589	.34761	24.290	.36252
11.896	.34798	24.603	.36287
12.204	.34836	24.916	.36323
12.511	.34873	25.229	.36359
12.819	.34910	25.542	.36394
		25.855	.36429

Zecchini, 1905

%	t	n_D
0	20.0	1.33298
2.8152	21.5	.33699
5.5283	21.6	.33999
5.5270	21.2	.34031
12.2621	22.2	.34878
12.0130	22.2	.34820
47.0966	19.1	.39234
47.1436	20.0	.39295
99.3114	23.7	.40114

Chèneveau, 1907

%	n_D	%	n_D
	18°		
0	1.3331	14.83	1.3524
5.21	.3394	19.27	.3589
10.15	.3462	23.51	.3647
12.52	.3493		

Hantzsch and Dürigen, 1928

wt%	mol%	n_D	wt%	mol%	n_D
		20°			
2.2793	0.7	1.33593	11.329	3.5	1.34770
3.0830	-	.33696	18.930	6.2	.35811
3.3752	-	.33741	25.980	9.1	.36781
3.3870	-	.33783	41.150	16.7	.38698
3.7388	-	.33786	64.820	34.5	.40325
3.7447	1.1	.33784	69.733	39.2	.40369
4.1960	1.2	.33835	79.829	53.1	.40231
4.7623	1.4	.33905			

Lühdemann, 1935

mol%	n_{He}	mol%	n_{He}
	25°		
0	1.33248	31.708	1.40051
1.835	.34020	38.223	.40148
4.187	.34950	44.976	.40105
6.832	.35530	52.831	.39979
9.542	.36814	65.216	.39760
14.661	.38161	79.709	.39747
19.761	.39077	99.995	.39316
25.607	.39720		

Guillaume, 1946

%	$n_{5780\ \mathring{A}}$	%	$n_{5780\ \mathring{A}}$
	20°		
4.72	1.3402	17.84	1.3574
7.81	.3444	20.99	.3616
10.00	.3472	27.80	.3710
12.67	.3507	39.28	.3856
15.94	.3549		

Perkin, 1893

%	$(\alpha)_{magn.}$	%	$(\alpha)_{magn}$
	15°		
22.54	0.9350	56.44	0.8042
26.81	.9238	99.45	.5292
32.36	.9066		

Mallemann and Guillaume, 1945

d	$*(\alpha)^{mol}_{magn}.10^5$	d	$(\alpha)^{mol}_{magn}.10^5$
	20°		
1.0706	6.01	1.2420	6.39
1.0900	5.82	1.3534	6.98
1.1211	5.72	1.5170	8.63
1.1654	6.04		

* In radians, gauss, centim.

Guillaume, 1946

%	$*(\alpha)_{magn}.10^6$ 5780 Å	%	$(\alpha)_{magn}.10^6$ 5780 Å
	20°		
4.72	3.833	17.84	3.427
7.81	3.740	20.99	3.333
10.00	3.672	27.80	3.136
12.67	3.592	39.28	2.814
15.94	3.488		

* In radians, gauss, centim.

Okazaki, 1933

%	Verdet's const.10^5 (3514 Å)	%	Verdet's const.10^5 (3514 Å)
	28°		
5.87	4122	31.80	3767
12.28	4053	42.22	3641
19.50	3920	51.18	3485
25.64	3863		

Decker, 1926

%	χ
	18.3°
6.5	-0.6876
31.7	-0.5719
52.0	-0.4924

Rangonadham and Qureshi, 1936

%	χ	%	χ
0.00	-0.7200	38.50	-0.5194
4.80	.6597	43.33	.5228
6.60	.6399	47.85	.5040
10.33	.6333	48.15	.5033
20.57	.5992	54.60	.4851
29.85	.5557	60.20	.4613
34.85	.5378	64.25	.4518

Pacault and Chédin, 1950

%	χ	%	χ
0	-0.720	79.59	-0.391
9.25	.673	82.49	.378
20.01	.629	86.71	.363
29.89	.585	89.42	.354
40.09	.545	93.21	.338
49.51	.502	95.82	.331
59.68	.460	99.50	.318
70.45	-0 425	100.00	-0.316

Kohlrausch and Grotrian, 1875

%	κ		%	κ	
	0°	18°		0°	18°
6.2	2252	3108	37.2	5524	7507
12.4	3967	5392	43.4	5092	6963
18.6	5134	6867	49.6	4543	6308
29.8	5742	7638	55.8	4007	5623
31.0	5806	8080	62.0	3504	4940

Bouty, 1888

%	κ	%	κ
	0°		
97.9	160.5	63.3	3620
96.9	223.5	58.5	3988
95.2	315.4	55.6	4180
92.8	481.1	51.6	5621
88.0	833.5	38.8	5835
78.8	1765.7	31.8	5900
77.3	2261.0	27.2	5665
72.6	2803.0	17.3	4774
70.3	3250.0	11.6	3681
67.1	3411.0	6.1	2178

Veley and Manley, 1902

%	$\alpha.10^6$	
	4-14.2°	14.2-24.2°
0.625	100	158
2.732	150	241
4.595	205	246
7.585	283	265
10.75	341	370
13.99	391	403
14.95	402	446
16.88	428	455
18.44	476	525
19.32	484	-
23.89	540	542
25.50	550	585
28.97	629	608
30.17	647	637
33.55	700	672
38.10	770	-
42.33	817	790
44.41	847	801
46.56	864	817
51.24	942	907
54.60	980	950
56.29	980	950
58.32	-	950
60.42	1000	-
60.60	-	990
62.84	-	1038
65.80	1058	1043
67.85	-	1060
71.60	1054	-
75.64	1088	1076
76.55	1088	1076
78.22	1095	-
81.93	1143	1093
85.21	1143	1096
87.90	-	1096
92.24	1200	1141
94.04	1200	1141
95.62	1200	1141
96.64	1222	1172
97.33	-	1190
98.07	1250	1210
100.00	1274	1240

$\lambda_t = \lambda_4 (1 + \alpha t)$

%	λ	%	λ
	15°		
1.30	306.2	65.77	14.1
3.12	299.3	69.53	10.9
5.99	275.2	73.82	6.84
10.13	242.4	76.59	5.35
15.32	202.1	78.90	3.48
20.11	169.3	84.08	1.15
25.96	131.3	86.18	1.00
30.42	106.4	87.72	0.66
33.81	91.0	89.92	0.38
35.90	78.1	91.87	0.18
39.48	67.8	94.32	0.07
45.01	50.9	96.12	0.037
51.78	35.7	98.50	0.017
53.03	32.3	99.27	0.014
58.20	23.5	99.97	0.017
61.20	19.7	99.99	0.007

Jones and Getman, 1902, 1903 and 1904

M	λ	M	λ
	0°		
0.5	213.30	2	169.23
1	194.95	2.5	155.43
1.5	184.89	3	140.97

Küster and Kremann, 1904

%	κ	%	κ
	-16°		
20.0	3910	58.0	2720
25.0	4160	60.0	2650
30.0	4340	65.0	2380
35.0	4120	70.0	2050
40.0	3910	75.0	1630
45.0	3660	77.0	1430
50.0	3330	79.0	1160
52.0	3180	82.0	893
54.0	2990	85.0	634
56.0	2870	89.4	317

Jones, 1904; Jones and Bassett, 1905

M	λ	M	λ
	0°		
0.05	232.5	0.80	205.5
.10	228.5	0.90	204.0
.20	226.1	1.00	199.5
.30	222.1	2.00	174.0
.40	218.6	3.00	148.9
.50	215.0	4.00	127.1
.60	209.2	5.00	108.0
.70	207.0	6.00	89.4

Johnston, 1906

N	λ	N	λ
	0°		
0.001	235.0	2.625	146.4
0.100	227.1	5.250	98.7
1	194.2	10.500	40.0

Rabinowitsch, 1921

%	κ	%	κ
	18°		
38.0	4964	75.2	7676
44.2	5652	81.4	6901
50.4	6341	87.6	5418
56.6	6998	93.8	3123
62.8	7545	100.0	0
69.0	7819		

Chanukvadze, 1947

%	κ				
	0°	10°	20°	30°	40°
7.82	2370	2810	3080	3440	3710
15.29	2700	3180	8580	4620	-
18.78	3390	3960	4550	4860	-
22.99	4220	4900	5350	5860	6340
25.49	4310	4950	5560	5880	6380
27.70	4380	5010	5590	6000	6430
29.82	4420	5060	5600	6050	6420
33.87	4320	5080	5670	5990	6430
41.30	3940	4680	5270	5590	5990
48.70	3300	4010	4680	5130	5340
53.86	2780	3360	3890	4280	4750
54.08	2770	3290	3850	4220	-
57.50	2700	3180	3580	3730	-
60.26	2600	3170	3450	3530	4120
64.03	2450	2650	2860	3170	3550
72.30	1980	2200	2370	2740	3020
79.09	1500	1590	1710	1840	1940
83.52	1070	1100	1220	1290	1380
90.18	870	900	980	1040	1080
93.95	420	510	530	570	-
99.50	369	376	390	390	-

Heat constants.

Thomsen, 1871

mol%	U
18°	
0.5	0.982
1	.963
2	.930
4.8	.849
9	.768

Marignac, 1876

%	U
21-52°	
4.32	0.9618
6.53	.9273
12.27	.8752
21.89	.8043
41.18	.7212

Pascal and Garnier, 1920

%	U	%	U
20°			
0	1	70.00	0.610
10	0.900	81.80	.575
23.57	.787	90.33	.530
40.00	.669	92.15	.500
45.87	.662	98.15	.475
60.52	.637		

Richards and Rowe, 1921

mol%	U
20°	
4	0.8654
2	.9227
1	.9583
0.5	.9782
0.25	.9888

Miscenko, 1931

%	U			
	2.53°	21.07°	39.49°	60.11°
1	0.9932	0.9872	0.9855	0.9886
2	.9785	.9758	.9735	.9780
4	.9538	.9521	.9514	.9570
6	.9273	.9286	.9293	.9359
10	.8849	.8861	.8919	.8999
15	.8389	.8426	.8511	.8627
20	.7998	.8063	.8154	.8301
25	.7670	.7790	.7868	.8051
30	.7398	.7576	.7645	.7847
35	.7161	.7371	.7449	.7667
40	.6980	.7175	.7267	.7502
45	.6829	.6992	.7098	.7331
50	.6677	.6815	.6939	.7139
55	.6498	.6622	.6757	.6922
60	.6293	.6415	.6540	.6688
65	.6070	.6190	.6298	.6422
70	.5830	.5940	.6032	.6133
75	.5581	.5668	.5749	.5820
80	.5352	.5417	.5462	.5517
85	.5153	.5193	.5216	.5258
90	.4900	.4913	.4913	.4961
95	.4561	.4580	.4618	.4632
100	.4181	.4195	.4251	.4270

Richards and Rowe, 1921

mol% initial	mol% final	Q dil.
20°		
9	4	+160
-	2	135
-	1	119
-	0.5	119
-	0.25	122

Water + Phosphorous acid (PO_3H_3)

Italiener, 1917

%	f.t.	%	f.t.
75.58	0	84.12	30
81.95	20.25	85.00	35
82.64	25.40	87.42	39.4

Agamennone, 1893

%	d
	26.9°
0	0.99657
30.6629	1.16089
73.6916	1.46648

Zecchini, 1905

%	t	d	n_D
0	0	0.99973	1.33368
26.7750	10	1.13361	.36069
30.6629	26.8	.16089	.36436
73.6916	25.6	.46648	.41815

Water + Arsenious trioxide (As_2O_3)

Nietzki, 1910

%	d	%	d
	16°		
56.5	1.761	66.5	2.003
57.4	.781	67.7	.071
58.3	.803	68.9	.112
59.2	.826	70.2	.157
60.1	.850	71.7	.205
61.1	.875	72.9	.257
62.1	.903	74.3	.314
63.5	.932	75.5	.364
64.2	.964	77.4	.446
65.3	.997		

Water + Boric anhydride (B_2O_3)
(see also water + boric acid)

Holt, 1910-11

mol%	m.t.	mol%	m.t.
25	169-170	66.7	171-173
40	158-159	70	172-174
50	159-160	75	171-172
57	167-174	78.5	170-172
62.5	172-173		

Mc Culloch, 1937

%	f.t.
80.1	215-220
82.8	245-250
85.0	310-315
99.6	460-470

Water + Boric acid (BO_3H_3)

Tammann, 1885

%	p
	100°
4.79	749.8
10.08	736.9
11.59	733.7
16.68	719.0
21.48	703.9

Lescoeur, 1890

t	p dissoc. (3+1)	p sat.sol.
5	-	5.8
10	-	6.8
20	2	12.1
43.5	5	-
66	16	-
79	30	-
100	60	-
128	242	-

Beckmann, 1890

%	b.t.	%	b.t.
0	100	6.89	100.589
2.34	100.185	10.86	100.980
4.64	100.380	14.73	101.390

Kahlenberg, 1914

%	b.t.	%	b.t.
	743 mm		
0	99.37		
3.06	99.63	16.64	100.94
4.99	99.79	19.28	101.37
8.05	100.09	20.95	101.50
10.74	100.38	22.66	101.78
12.36	100.55	25.25	102.29
14.13	100.78	26.69	102.38

Jablezynski and Kon, 1923

m	b.t.	m	b.t.
0.4096	100.214	2.0300	101.061
0.8030	100.421	2.4167	101.265
1.1897	100.625	2.8180	101.472
1.5998	100.838	3.1766	101.656

Nasini and Ageno, 1909

%	b.t.	%	b.t.
0	99.97	13.34	101.035
2.060	100.16	15.65	101.260
2.286	100.19	21.50	101.785
4.083	100.32	22.38	101.900
7.693	100.61	30.15	102.270
9.400	100.77	satd.	103.090

%	f.t.	%	f.t.
2.27	-0.76 E	15.58	69.5
2.59	0	19.11	80
3.69	12	23.30	90
4.90	21	28.10	99.5
6.44	31	36.70	108
8.02	40	45.00	115
10.35	50	52.40	120
12.90	60		

tr.t. orthoboric-metaboric acid 107-108°

metaboric-pyroboric acid 138-140°

Sborgi and Ferri, 1922

%	f.t.	%	f.t.
2.27	-0.76	9.36	+45
2.59	0	10.35	50
3.47	+10	12.88	60
3.69	12.2	15.58	69
4.89	21	19.10	80
6.43	31	23.94	90
7.21	35	28.09	99.5
8.02	40		

Blasdale and Slansky, 1939

%	f.t.	%	f.t.
1.52	0	6.50	55
1.77	5	7.30	60
1.98	10	8.12	65
2.35	15	8.87	70
2.62	20	9.80	75
3.06	25	10.73	80
3.57	30	11.83	85
4.05	35	13.10	90
4.60	40	14.20	95
5.25	45	15.50	100
5.76	50	16.48	103.3

Benrath, 1942

%	f.t.	%	f.t.
31.0	110	63.4	160
35.2	120	70.6	166
39.2	126	77.6	172
45.7	138	85.0	176
47.9	141	92.0	179
49.4	145	100.0	181
56.5	152		

Perova, 1954

%	f.t.
6.40	30
10.35	50
15.80	70
23.00	90

Kasankin, 1891

d sat.sol.	
16.5°	33°
1.0127	1.0154

Water + Phosphoric anhydride (P_2O_5)
(see also the system: H_2O + Phosphoric acid)

Brown and Whitt, 1952

t	p	t	p
	61.6 %		
85.5	53.3	120	234.7
96	89.2	130.5	344.0
104	124.9	154	752.0
111.5	170.2		
	63.7 %		
87	41.5	115	155.2
93	57.8	127	242.8
103	89.9	138	350.9
111.5	134.4	161	752.1
	66.1 %		
104	52.1	147	285.8
117	93.3	154	352.6
126	128.9	177	750.0
137.5	199.4		
	66.9 %		
105.5	39.2	150	240.9
123	90.3	161.5	343.9
130.5	119.3	188	757.0
142	181.2		
	68.5 %		
115	45.6	150.5	216.6
123.5	71.7	160	294.6
129	93.3	166	347.5
138	134.2	193	755.0
	69.0 %		
120	39.3	173	293.6
138.5	86.5	177.5	356.7
156	166.2	207	755.0
	70.3 %		
132.5	30.9	184	243.0
147	63.6	195	339.3
156	94.3	224	758.9
162.5	129.9		
	72.4 %		
166	32.2	211	223.5
175	59.7	227	356.1
183	88.6	256	758.9
195.5	131.4		
	75.3 %		
204	41.8	257	231.9
223	87.8	276	384.3
233.5	121.5	301	755.2
245	173.1		
	76.3 %		
276	226.1	291	349.9
284	287.0	326	750
	78.2 %		
298	94.4	353	403.3
309	132.0	361	480.6
320	177.3	369	569.8
331	235.4	375	645.3
338	284.7	383	754.4
346	342.3		
	78.7 %		
267	35.0	327	250.2
278	56.8	344	363.3
295	92.2	380	753.0
310.5	163.7		
	79.7 %		
341	109.3	399	436.6
357	168.6	408	527.2
370	231.0	412	581.8
383	317.1	419	645.4
392	380.2	428	745.7
	81.5 %		
385	100.7	456	481.0
406	175.8	464	570.5
426	255.3	470	644.2
435	315.1	479	748.9
447	401.7		
	83.7 %		
425	99.3	503	455.8
443	148,1	513	529.8
457	202.5	518	591.8
471	265.9	523	646.0
485	335.2	532	749.1
495	399.4		
	85.9 %		
515	101.6	583	380.5
539	168.4	598	468.3
545	193.1	613	568.3
560	255.0	624	642.2
566	295.6	634	748.6
	88.5 %		
631	170.9	708	533.0
655	233.1	717	608.3
672	306.2	723	679.5
689	382.7	733	754.0
698	459.0		
	91.9 %		
705	117.9	816	499.3
744	195.2	833	566.4
756	237.2	845	672.1
780	318.7	852	752.7
793	365.5		
	92.7 %		
694	88.0	808	414.3
716	135.3	824	483.1
745	190.1	839	568.4
768	254.8	851	656.9
786	317.0	866	754.7

%	b.t.	%	b.t.
61.6	154.2	78.2	382.2
63.7	161.6	78.7	380.1
66.1	177.6	79.7	427.3
66.9	187.8	81.5	479.7
68.5	192.6	83.7	533.4
69.0	205.1	85.9	633.4
70.3	224.5	88.5	732.4
72.4	255.3	91.9	855.4
75.3	301.9	92.7	865.8
76.3	325.1		

Gelbstein and Temkin, 1953

%	b.t.	%	b.t.	%	b.t.
		760 mm			
29.0	103	70.7	240	74.7	304
50.7	123	71.7	260	76.3	318
53.5	130	72.4	284	77.8	335
57.5	141	73.2	290	78.7	350
65.9	180	74.0	297	79.0	355
67.6	200	74.5	301	80.0	380
69.8	220				

Schiff, 1860

%	d	%	d
		15°	
0	0.999		
1	1.008	23	1.201
2	.016	24	.211
3	.024	25	.222
4	.031	26	.222
5	.038	27	.243
6	.046	28	.253
7	.054	29	.264
8	.062	30	.276
9	.070	31	.287
10	.079	32	.298
11	.088	33	.309
12	.097	34	.320
13	.105	35	.332
14	.114	36	.344
15	.123	37	.356
16	.132	38	.361
17	.141	39	.380
18	.150	40	.392
19	.160	41	.406
20	.170	42	.419
21	.181	43	.431
22	.191	44	.444

Phillips, 1909

%	κ	%	κ
		0°	
1.4	140.0	52.83	1375.0
2.87	253.3	53.22	1353.1
5.28	424.5	65.72	1022.6
16.09	806.4	71.29	787.6
22.60	1002.2	74.99	608.6
30.71	1281.6	79.21	468.0
33.75	1376.3	82.22	405.5
36.08	1441.3	92.07	220.3
38.49	1459.2	93.52	173.9
43.26	1491.6	100.03	140.6
48.90	1444.9		

Gelbstein, Shcheglova and Temkine, 1956

wt%	H_0 4°	H_0 20°	H_0 40°
72.4	-5.43	-5.18	-4.85
73.0	-5.49	-5.25	-4.92
74.0	-5.58	-5.34	-5.04
75.0	-5.70	-5.45	-5.15
76.0	-5.78	-5.54	-5.25
77.0	-5.86	-5.63	-5.34
78.0	-5.94	-5.70	-5.42
79.0	-6.01	-5.77	-5.48
79.7	-6.05	-5.80	-5.49
81.0	-5.74	-5.50	-5.20
82.0	-5.52	-5.29	-5.00
83.0	-5.31	-5.09	-4.80
83.8	-5.20	-4.97	-4.67

$H_0 = -\lg h_0$ is the acidity function

Brown and Whitt, 1952

%	b.t.	Q vap.
61.6	154.2	11510
63.7	161.6	11430
66.1	177.6	12250
66.9	187.8	11920
68.5	192.6	11910
69.0	205.1	12680
70.3	224.5	12610
72.4	255.3	14320
75.3	301.9	15790
76.3	325.1	15940
78.2	382.2	18120
78.7	380.1	16520
79.7	427.3	18790
81.5	479.7	20730
83.7	533.4	20550
85.9	633.4	22560
88.5	732.4	27900
91.9	855.4	27300
92.7	865.8	26570

Water + Phosphoric acid (PO_4H_3)

(see also the system: water + phosphoric anhydride)

Heterogeneous equilibria.

Tammann, 1885

%	p	%	p
		100°	
17.18	729.9	59.87	469.1
17.47	728.9	68.85	355.4
30.95	688.3	72.91	292.4
36.75	657.6	76.76	152.7
48.67	577.0		

Dieterici, 1898

M	p	M	p
	0°		
0	4.579	7.914	3.496
0.984	.510	12.740	2.710
2.278	.377	22.470	1.557
4.020	.135	39.880	0.636

Kablukov and Zagvosdkin, 1935

%	p 25°	40°	60°	80°
0.00	23.75	54.85	149.38	355.10
10.00	22.63	54.21	147.19	348.45
20.00	22.22	52.21	142.32	335.59
30.00	21.52	48.65	133.51	314.78
40.00	19.88	43.47	120.33	284.82
50.00	17.04	36.77	102.57	245.45
60.00	12.94	28.80	80.87	197.33
70.00	8.08	19.95	56.38	141.97
80.00	3.12	10.77	30.89	81.75
90.00	1.69	1.96	6.73	19.98

Chambers and Frazer, 1900

M	f.t.	M	f.t.
0.118	-0.274	0.944	-2.143
0.236	-0.535	1.410	-3.349
0.472	-1.039	1.620	-4.213

Jones, 1904; Jones and Bassett, 1905;
Jones and Getman, 1910

M	f.t.	M	f.t.
0.10	-0.235	2.00	-5.55
.20	.458	3.00	-9.75
.30	.667	4.00	-16.50
.40	.868	5.00	-25.00
.60	-1.292	6.00	-38.00
.80	-1.775	6.919	-52.00
1.00	-2.370		

Jones and Getman, 1904

M	f.t.
0.52	-1.111
1.04	-2.468
2.08	-5.398
3.12	-9.455

Smith and Menzies, 1909

%	f.t.		%	f.t.	
76.7	-16.3		94.80	24.40	
78.7	0.5		94.95	24.81	
81.7	+14.95		95.26	25.41	
85.7	24.03		95.54	25.85	
87.7	27.00		95.90	26.23	(1+10)
90.5	29.15		95.98	27.02	
91.6	29.35	(1+2)	96.15	29.42	
92.5	28.50		96.11	29.77	
93.4	27.00		97.80	37.65	
94.1	25.41		98.48	39.35	
94.78	24.11		100.00	42.30	
94.8	24.38				

tr.t. (1+2) - (1+10) 23.5° (1+10)-anh. 26.2°

p sat.sol. (1+2) at 25° = 0.85 mm

Ross and Jones, 1925

%	f.t.	%	f.t.
62.50	-85.0 E	92.72	+28.28
67.50	-57.0	93.33	27.36
70.00	-43.0	93.74	26.08
72.50	-29.0	94.75	23.50 E
75.00	-17.5	95.22	25.88
78.75	0	95.56	27.30
84.07	+18.92	95.86	28.38
85.93	23.41	96.18	29.90
87.05	25.24	96.80	31.96 (anh.)
88.51	27.30	97.40	34.06
90.00	28.75	98.00	36.15
91.60	29.32	99.27	40.02
92.30	28.80	100.00	42.35

Elmore, Mason and Christensen, 1946
Isopiestic solutions

m_1	m_2	m_1	m_2
	25°		
0.1659	0.1099	2.1645	1.3713
.1794	.1166	.5348	.6253
.2342	.1480	.5622	.6763
.3034	.1876	.9366	.9097
.3321	.2180	3.0575	.9926
.4798	.2956	3.9978	2.6669
.5899	.3612	4.3306	2.9047
.6406	.3915	5.5092	3.7763
.7790	.4799	5.7063	3.9129
.9040	.5569	6.4949	4.5067
1.0134	.6196	6.5724	4.5694
.0675	.6538	7.5356	5.2619
.6103	.9993	8.0280	5.6239
.7602	1.0969	8.5142	5.9769
2.0445	.2904	8.7020	6.1139
2.1474	.3592		

m_1 - PO_4H_3 m_2 - NaCl

Properties of phases .

Hager, 1866

%	d	%	d
	17.5°		
1.38	1.006	48.31	1.324
2.76	.013	49.69	.336
4.14	.020	51.07	.348
5.52	.027	52.45	.360
6.90	.035	53.83	.372
8.28	.043	55.22	.384
9.66	.052	56.60	.396
11.04	.060	57.98	.408
12.42	.069	59.36	.421
13.80	.077	60.74	.434
15.18	.085	62.12	.446
16.56	.094	63.50	.460
17.94	.102	64.88	.474
19.32	.111	66.26	.489
20.70	.119	67.64	.503
22.08	.128	69.02	.519
23.46	.138	70.40	.534
24.84	.147	71.78	.549
26.22	.157	73.16	.564
27.61	.166	74.54	.579
28.99	.176	75.92	.595
30.37	.186	77.30	.611
31.75	.196	78.68	.627
33.13	.206	80.06	.643
34.51	.217	81.44	.659
35.89	.227	82.82	.675
37.27	.238	84.20	.691
38.65	.248	85.58	.707
40.03	.259	86.96	.723
41.41	.270	88.34	.739
42.79	.280	89.72	.756
44.17	.291	91.10	.773
45.55	.302	92.48	.790
46.93	.313	93.86	.807

Watts, 1866

%	d	%	d
	room t.		
68.47	1.508	38.98	1.247
66.81	.492	37.68	.236
65.02	.476	36.39	.226
62.99	.464	34.22	.211
62.64	.453	32.07	.197
60.92	.442	30.47	.185
60.67	.434	28.87	.173
59.75	.426	27.24	.162
58.82	.418	25.96	.153
57.43	.401	24.69	.144
56.41	.392	23.38	.136
55.39	.384	21.58	.124
54.75	.376	19.64	.113
54.12	.369	18.29	.109
52.45	.356	16.81	.095
51.58	.347	14.40	.081
50.71	.339	13.25	.073
49.90	.328	11.90	.066
48.06	.315	10.20	.056
46.23	.302	8.51	.047
45.15	.293	5.73	.031
44.09	.285	4.18	.022
42.83	.276	2.64	.014
41.59	.268	1.09	.006
40.25	.257		

Kohlrausch, 1876

%	d	%	d
	15°		
0	0.9991	36.90	1.2299
4.92	1.0265	49.80	.3311
10.25	.0562	67.80	.4942
20.05	.1154	78.93	.6077
30.52	.1844	87.07	.7009

Grotrian, 1877

t	d	t	d
9.08 %		19.41 %	
10.27	1.0497	9.80	1.1132
20.67	.0473	20.81	.1093
27.40	.0449	32.55	.1052
29.66 %		38.86 %	
10.73	1.1795	11.41	1.2468
20.59	.1754	21.66	.2420
30.95	.1708	41.74	.2313
48.06 %		58.65 %	
11.95	1.3152	12.65	1.4161
22.17	.3097	21.72	.4105
38.63	.3000	37.78	.4000
67.12 %			
12.86	1.4951		
21,87	.4889		
40.66	.4753		

Slotte, 1883

%	d
room temp.	
8.51	1.0575
17.65	1.1241
47.99	1.3868

Moore, 1895-96

M	d
18°	
0.00	0.9987
.25	1.0120
.50	.0251
1.00	.0508
2.00	.1022

Jones, 1904; Jones and Bassett, 1905; Jones and Getman, 1910

%	d	%	d
	0°		
0	0.999868	7.533	1.0408
0.489	1.0022	8.429	.0463
0.976	.0041	9.319	.0516
1.941	.0097	17.74	.1047
2.896	.0150	25.58	.1555
3.842	.0203	31.43	.2471
4.778	.0255	38.88	.2599
5.705	.0306	44.95	.3082
6.543	.0364	50.49	.3429

Zecchini, 1905

%	t	d
0	10	0.99973
16.460	10	1.09447
25.032	13	.14645
36.4610	14.5	.22584
55.2920	13.9	.38434

Pratolongo, 1913

N	d	N	d
	18°		
0.375	1.0070	1.50	1:0264
0.75	.0128	3.00	.0538

Knowlton and Mounce, 1921

%	d	%	d
	25°		
3.39	1.0158	56.24	1.3870
5.66	.0280	61.91	.4442
10.23	.0585	68.62	.5087
11.44	.0606	74.45	.5688
17.63	.0978	78.72	.6148
21.55	.1230	78.87	.6166
28.43	.1681	82.82	.6610
31.17	.1883	83.62	.6678
36.53	.2253	85.61	.6946
48.12	.3151	87.29	.7117
51.61	.3467	87.56	.7408
53.23	.3618	90.26	.7486

Manchot, Jahrstorfer and Zepter, 1924

c	d
25°	
11.473	1.0593
18.631	.0964
49.520	.2557

Guillaume, 1946

%	d
20°	
7.95	1.0436
18.75	.1080
26.67	.1663
58.29	.4131
78.05	.6152

Mason and Culvern, 1949

M	d	M	d
	25°		
0.09927	1.0025	6.2463	1.3062
.10	.0026	6.7059	.3278
.1976	.0075	7.0	.3422
.2951	.0125	8.0	.3882
.6759	.0318	9.0	.4346
.9523	.0457	10.0	.4806
1.820	.0890	11.0	.5255
2.6188	.1290	12.0	.5719
3.3495	.1654	13.0	.6152
4.0220	.1988	14.0	.6591
4.6420	.2287	15.887	.7345
5.7510	.2825		

Sklyarenko and Smirnov, 1951

%	mol%	d 25°	d 35°	d 42°	d 50°	d 75°
1.519	0.2828	1.0050	1.0016	0.9993	0.9960	0.9828
9.950	1.984	.0520	.0482	1.0447	1.0413	1.0278
27.08	6.371	.1592	.1537	.1496	.1468	.1315
40.11	10.96	.2556	.2495	.2462	.2414	.2269
54.72	18.17	.3783	.3718	.3672	.3616	.3451
68.08	28.19	.4985	.4912	.4857	.4810	.4637
81.39	44.39	.6401	.6322	.6266	.6203	.5999
88.22	57.86	.7242	.7162	.7107	.7049	.6844
93.10	70.63	.7886	.7807	.7749	.7691	.7489
97.35	87.16	.8443	.8355	.8297	.8241	.8048

Topchiev, Kurashev and Paushkin, 1953

%	d	%	d
	20°		
0.0	1.0000	75.2	1.6112
20.5	.1286	86.7	.7166
40.0	.2600	88.8	.7522
64.8	.5059	100.0	.8761

Christensen and Reed, 1955

%	d	%	d
	25°		
0.0644	0.99745	19.81	1.11201
.0981	.99765	21.85	.12503
.1214	.99779	23.82	.13776
.1540	.99799	25.83	.15114
.2449	.99850	27.81	.16354
.3970	.99933	29.70	.17747
.4902	.99986	31.82	.19243
.7115	1.00110	34.71	.21313
.9619	.00246	37.35	.23257
1.340	.00450	39.58	.24944
.479	.00523	41.68	.26568
.490	.00532	43.71	.28202
.767	.00682	44.68	.28750
.987	.00803	47.85	.31541
2.235	.00939	49.52	.32933
.482	.01074	51.09	.34267
.911	.01304	53.28	.36159
.952	.01326	56.48	.38981
3.450	.01598	59.10	.41387
3.937	.01867	60.21	.42429
4.496	.02174	63.83	.45863
4.501	.02174	64.54	.46555
5.016	.02463	66.40	.48391
5.924	.02963	67.93	.49915
6.906	.03515	76.16	.58515
7.861	.04056	77.51	.59587
8.955	.04675	79.65	.62354
9.905	.05319	81.69	.64647
11.890	.05374	83.58	.66800
13.870	.07546	87.65	.71570
15.880	.08762	88.84	.72971
17.900	.09803	89.12	.73310

Grotrian, 1877

%	t	η	t	η	t	η
9.08	9.13	1714	19.90	1283	29.74	1025
19.41	8.26	2416	19.98	1746	30.04	1368
29.66	8.66	3397	20.18	2523	29.84	2048
38.86	9.49	5116	20.50	3458	39.71	2179
48.06	9.42	7046	30.48	3832	48.31	2656
58.65	9.29	12121	30.39	6485	48.21	4255
67.12	9.13	19569	29.75	9952	48.74	6153

%	η	%	η
	20°		
9.08	1280	48.06	5018
19.41	1745	58.65	8651
29.66	2521	67.12	13369
38.86	3506		

Slotte, 1883

t	η 8.51%	17.65%	34.41%	48.99%
10	1721	2422	5490	14059
20	1316	1835	4021	9603
30	1043	1442	3069	6953
40	850	1166	2421	5288

Moore, 1895 - 1896

M	η (water=1)	M	η (water=1)
	18°		
0.00	1.000	1.0	1.311
0.25	1.064	2.0	1.739
0.50	1.143		

Sklyarenko and Smirnov, 1951

%	mol%	η(water=1) 25°	35°	42°	50°	75°
1.519	0.2828	1.052	1.050	1.044	1.046	1.031
9.950	1.984	1.310	1.294	1.285	1.273	1.236
27.08	6.371	2.255	2.206	2.161	2.119	1.967
40.11	10.96	-	-	-	-	-
54.72	18.17	7.196	6.793	6.543	6.250	5.480
68.08	28.19	13.87	12.86	12.17	11.35	9.506
81.39	44.39	33.53	29.00	26.31	23.58	17.38
88.22	57.86	62.53	51.89	45.80	39.84	28.61
93.10	70.63	101.0	80.77	70.28	60.79	41.24
97.35	87.16	159.2	124.40	105.94	90.16	59.24

Agamennone, 1893

%	n_D
26.9°	
0	1.33226
30.6629	1.36436
73.6916	1.41815

Jones and Getman, 1904

M	n_D	M	n_D
	0°		
0.065	1.32570	1.04	1.33362
.130	.32616	2.08	.34191
.260	.32750	3.12	.34974
.520	.32949		

Zecchini, 1905

%	t	n_D
0	10	1.33368
16.4600	10	.34936
25.0320	13	.35735
36.4610	14.5	.36920
55.2920	13.9	.39298

Wagner, 1920

%	n_D	%	n_D
	17.5°		
0	1.33320	16.898	1.34798
0.401	.33358	17.342	.34836
0.802	.33397	17.787	.34873
1.204	.33435	18.232	.34910
1.612	.33474	18.677	.34947
2.024	.33513	19.123	.34984
2.448	.33551	19.569	.35021
2.878	.33590	20.015	.35058
3.316	.33628	20.461	.35095
3.743	.33628	20.908	.35132
4.173	.33667	21.355	.35169
4.607	.33705	21.802	.35205
5.037	.33743	22.250	.35242
5.472	.33781	22.698	.35279
5.907	.33820	23.147	.35316
6.342	.33858	23.597	.35352
6.777	.33896	24.648	.35388
7.212	.33934	24.500	.35425
7.648	.33972	24.952	.35461
8.084	.34010	25.404	.35497
8.521	.34086	25.886	.35533
8.958	.34124	26.308	.35569
9.396	.34162	26.761	.35606
9.834	.34199	27.215	.35642
10.273	.34297	27.670	.35678
10.712	.34275	28.126	.35714
11.152	.34313	28.582	.35750
11.592	.34350	29.039	.35786
12.073	.34388	29.496	.36822
12.474	.34426	29.953	.35858
12.915	.34463	30.410	.35894
13.357	.34500	30.867	.35930
13.799	.34537	31.324	.35966
14.241	.34575	31.781	.36002
14.683	.34612	32.238	.36038
15.125	.34650	32.695	.36074
15.568	.34687	33.152	.36109
16.011	.34724		
16.545	.34761		

Guillaume, 1946

%	$n_{5780\,Å}$	* $(\alpha)_{magn.}10^6$ (5780 Å)
	20°	
7.95	3.820	1.3409
18.75	3.629	.3527
26.67	3.472	.3623
58.29	2.909	.3980
78.05	2.533	.4244

* In radians, gauss, centim.

Kohlrausch, 1876

%	$\tau.10^4$	$\varkappa$	%	$\tau.10^4$	$\varkappa$
		18°			
4.92	99	306	49.80	173	2068
10.25	104	581	67.80	242	1527
20.05	114	1128	78.93	302	1023
30.52	131	1673	87.07	374	702
36.90	144	1921			

Jones, 1904, Jones and Bassett, 1905 and Jones and Getman, 1910

M	λ	M	λ
	0°		
0.05	85.5	0.90	42.6
0.10	68.6	1.00	42.0
0.20	61.5	2.00	38.0
0.30	50.0	3.00	35.2
0.40	47.5	4.00	31.6
0.50	45.8	5.00	26.8
0.60	45.1	6.00	23.4
0.69	44.4	6.919	20.0
0.80	43.0		

Jones and Getman, 1904

M	λ	M	λ
	0°		
0.065	82.18	1.04	37.70
0.130	62.06	2.08	34.89
0.260	50.38	3.12	33.16
0.520	42.92		

Wegelius, 1908

t	λ	t	λ	t	λ
		54.3 N			
14.8	1.22	35.2	2.32	74.4	5.07
16.5	1.30	46.2	3.12	84.1	5.51
26.0	1.75	59.3	3.88	93.7	6.01
32.5	2.06	66.2	4.22		
		2.715 N			
64.3	19.9	75.3	20.7	85.3	20.4
68.7	20.3	78.4	20.7	93.0	20.2
74.3	20.5				
		1.955 N			
15.5	19.8	67.0	24.8	80.1	29.4
56.9	24.4	73.6	24.7		
		0.0108 N			
15.5	90.0	57.2	136.0	85.4	154.3
31.1	109.7	70.9	145.4	93.0	156.7
		0.00217 N			
15.5	137.8	57.1	242.0	86.6	306.2
31.1	172.9	71.1	273.3	93.4	326.0

Smith and Menzies, 1909

%	κ	%	κ
29.3°			
89.7	863.9	94.5	707.8
90.5	833.4	95.3	690.2
91.2	806.1	96.2	670.0
92.0	781.5	98.8	610.2
93.6	732.4		

Campbell, 1926

%	m	κ
	0°	
8.93	1	441
16.40	2	731
22.73	3	929
28.18	4	1124
32.91	5	1238
37.04	6	1357
40.70	7	1374
41.77	7.32	1396
43.51	7.95	1400
45.41	8.51	1408
47.14	9.10	1392
48.76	9.71	1376
49.49	10	1368
51.66	11	1342
54.06	12	1314

Mason and Culvern, 1949

M	λ	M	λ
25°			
0.001	336.38	1.820	55.44
.003	291.82	2.6188	53.95
.004	276.21	3.3495	51.63
.006	253.71	4.0220	49.02
.008	236.99	4.6420	46.07
.010	223.00	5.7510	40.18
.020	180.95	6.2463	37.32
.02593	166.34	6.7059	34.56
.040	143.73	7.0	33.03
.04777	134.63	8.0	27.53
.050	133.05	9.0	22.52
.070	117.89	10.0	18.16
.080	112:59	11.0	14.47
.090	108.00	12.0	11.43
.09927	104.43	13.0	9.04
.1000	104.05	14.0	7.16
.1976	93.10	15.887	4.80
.2951	73.96		
.6759	61.17		
.9523	58.20		

Sklyarenko and Smirnov, 1951

%	mol%	κ 25°	35°	42°	50°	75°
1.519	0.2828	139.9	151.1	156.2	162.2	169.7
9.950	1.984	622.3	676.6	704.1	731.0	765.2
27.08	6.371	1602	1756	1808	1830	2017
40.11	10.96	2003	2250	2341	2496	2796
54.72	18.17	2010	2233	2379	2527	3155
68.08	28.19	1558	1878	2067	2304	2908
81.39	44.39	991.6	1246	1429	1663	2337
88.22	57.86	746.6	981.0	1149	1363	2014
93.10	70.63	615.0	836.1	1012	1227	1925
97.35	87.16	509.3	713.8	877.4	1066	1728

Tammann and Tofaute, 1929

P Kg	t	(DΛ/Λ).100 0.001N	0.01N	0.1N	0.5N
500	20	9.7	11.0	17.6	20.3
	40	4.1	9.7	15.7	17.5
1000	20	16.5	19.8	34.4	40.9
	40	8.5	17.4	30.7	36.1
1500	20	23.5	27.4	51.0	62.1
	40	13.0	24.8	45.8	55.0
2000	20	27.2	33.9	67.5	82.8
	40	17.4	31.2	60.3	73.9
2500	20	32.3	39.3	80.8	101.6
	40	21.5	36.2	73.9	92.0
3000	20	37.6	43.7	93.0	120.3
	40	25.5	40.9	85.2	111.0
		1.0N	2.18N	4.36N	8.73N
500	20	20.5	20.1	17.6	13.9
	40	18.3	18.7	15.7	12.4
1000	20	41.8	40.8	34.4	25.6
	40	36.3	36.3	32.1	24.5
1500	20	63.1	60.0	51.5	37.0
	40	55.0	55.0	48.1	37.2
2000	20	83.1	79.9	68.9	47.9
	40	74.8	72.4	63.7	48.6
2500	20	104.1	98.4	85.2	58.2
	40	92.8	90.6	79.8	59.7
3000	20	124.7	118.3	100.4	67.5
	40	112.0	108.8	94.2	70.4

Gelbstein, Shcheglova and Temkin, 1956

%	H_0 4°	20°	40°	60°	80°
5	-	+1.06	+1.06	+1.06	+1.06
10	-	0.75	0.75	0.75	0.75
15	-	0.52	0.52	0.52	0.52
20	-	0.30	0.30	0.30	0.30
25	-	+0.08	+0.08	+0.08	+0.08
30	-	-0.14	-0.12	-0.11	-0.09
35	-	0.36	0.33	0.30	0.27
40	-	0.59	0.55	0.51	0.47
45	-	0.81	0.76	0.70	0.64
50	-	1.03	0.97	0.90	0.83
55	-	1.26	1.19	1.11	1.03
60	-	1.52	1.43	1.35	1.26
65	-	1.86	1.76	1.65	1.55
70	-	2.32	2.17	2.02	1.88
75	-	2.82	2.63	2.44	2.25
80	-	3.29	3.07	2.85	2.64
85	-	3.78	3.52	3.26	3.01
90	-4.60	4.30	3.98	3.68	3.39
95	-5.05	4.77	4.44	-4.08	-3.75
100	-5.43	-5.18	-4.85	-	-

$H_0 = -\lg h_0$ = acidity function .

Popov, Skuratov and Feodosiev, 1933

%	U	%	U
20.5-22.0°			
2.50	0.9903	46.22	0.6607
3.80	.9770	48.16	.6475
5.33	.9669	49.79	.6370
8.81	.9389	50.00	.6350
10.27	.9298	52.19	.6220
14.39	.8958	53.72	.6113
16.23	.8796	56.04	.5972
19.99	.8489	58.06	.5831
22.10	.8300	60.23	.5704
24.56	.8125	62.10	.5603
25.18	.8004	64.14	.5460
28.15	.7856	66.13	.5349
29.96	.7735	68.14	.5242
32.09	.7590	69.27	.5151
33.95	.7430	69.50	.5160
36.26	.7270	71.88	.5046
38.10	.7160	73.71	.4940
40.10	.7024	75.79	.4847
42.08	.6877	79.54	.4680
44.11	.6748		

%	t	U
64.95	19 - 118	0.5905
69.98	20 - 120	.5675
75.01	20 - 130	.5417
80.00	20 - 140	.5176
84.97	21 - 150	.4930
89.72	22 - 150	.4761

%	U
21°	
80.00	0.4686
82.00	.4593
84.00	.4500
85.98	.4419
88.01	.4359
89.72	.4206

Rümelin, 1907

% (initial)	t	Q dil* (by mole water)
15.32	17.52	8.22
15.41	17.48	8.23
21.43	17.18	12.21
21.57	17.15	12.30
28.14	17.40	19.80
28.21	17.86	20.05
32.70	17.68	33.08
32.75	17.61	33.91

* for a very small dilution in water

Water + Arsenic acid (AsH_3O_4)

(see also : water + Arsenic anhydride)

Tammann, 1885

%	p
100°	
11.24	746.9
19.11	735.4
25.41	723.3
31.82	709.3
38.60	687.5

Menzies and Potter, 1912

%	f.t.	%	f.t.
21.10	-4.2	54.43	-30.8
21.09	-4.2	54.42	-30.8
46.29	-18.8	63.46	-46.0
46.15	-18.8	63.37	-46.0
73.70(4+1)	-37.3	86.65	+19.80
73.77	-37.3	86.63	19.80
76.55	-21.8	87.92	24.63
76.59	-21.8	87.94	24.63
81.19	0	90.32	30.14
81.00	0	90.50	30.14
83.77	+9.78	92.57	34.81
83.62	9.78	92.64	34.81
85.68	15.49	94.10	36.22
85.50	15.49	94.13	36.22
88.26(5+3)	9.21	90.53	45.48
88.28	9.21	90.39	45.48
89.23	19.30	91.94	64.15
89.26	19.30	91.95	64.15
89.49	25.28	92.01	74.85
89.45	25.28	92.08	74.85
89.71	26.30	93.23	79.15
89.79	26.30	93.10	79.15
89.77	34.35	94.35	99.25
89.76	34.35	94.35	99.25
89.91	35.28	96.87	141.0
89.94	35.28	96.96	141.0
90.51	45.23		
90.45	45.23		

(4+1) f.t. = 36.17°

Schiff, 1860

%*	d	%*	d	%*	d
		15°			
1	1.0057	25	1.1872	48	1.4340
2	.0124	26	.1961	49	.4471
3	.0192	27	.2052	50	.4604
4	.0260	28	.2144	51	.4740
5	.0328	29	.2237	52	.4878
6	.0397	30	.2332	53	.5018
7	.0467	31	.2428	54	.5161
8	.0536	32	.2525	55	.5307
9	.0608	33	.2625	56	.5455
10	.0680	34	.2726	57	.5604
11	.0752	35	.2829	58	.5757
12	.0825	36	.2934	59	.5013
13	.0900	37	.3040	60	.6072
14	.0975	38	.3149	61	.6233
15	.1051	39	.3259	62	.6397
16	.1128	40	.3371	63	.6563
17	.1206	41	.3485	64	.6732
18	.1285	42	.3600	65	.6904
19	.1366	43	.3718	66	.7080
20	.1447	44	.3838	67	.7259
21	.1530	45	.3961	68	.7440
22	.1614	46	.4085	69	.7623
23	.1698	47	.4212	70	.7811
24	.1784				

* % (As_2O_5)

Kopp, 1888

%	d	%	d
	15°		
1.24	1.008	35.82	1.293
2.47	.016	37.05	.305
3.71	.025	38.29	.319
4.94	.033	39.52	.333
6.18	.041	40.76	.347
7.41	.049	41.99	.367
8.65	.058	43.23	.377
9.88	.067	44.46	.388
11.12	.076	45.70	.404
12.35	.084	46.93	.421
13.59	.094	48.17	.438
14.82	.103	49.40	.452
16.06	.114	50.64	.469
17.29	.123	51.87	.485
18.53	.133	53.11	.501
19.76	.143	54.34	.519
21.00	.153	55.58	.539
22.23	.163	56.81	.559
23.47	.174	58.05	.579
24.70	.186	59.28	.598
25.94	.198	60.52	.618
27.47	.209	61.75	.634
28.41	.220	62.99	.657
29.64	.231	64.22	.677
30.88	.244	65.46	.699
32.11	.255	66.69	.718
33.35	.278	67.93	.740
34.58	.279	69.16	.763
		70.40	.787

Water + Sulfur dioxide (SO_2)

Sins, 1862

%	p	%	p
	7°		
0.99	27.0	14.75	741.8
1.48	49.8	14.82	757.1
2.44	89.6	15.11	770.8
3.38	133.7	18.57	986.3
5.57	239.0	22.66	1291.0
	20°		
0.59	32.4	6.01	446.6
0.89	50.1	8.59	658.2
1.09	65.0	9.09	728.9
1.28	77.3	9.09	729.5
1.28	78.4	9.09	730.8
1.37	82.2	17.89	1570.0
1.96	121.8	20.63	1911.0
4.12	291.0		
	39.8°		
1.67	205.9	5.03	701.6
2.25	293.1	10.39	1565.0
5.12	696.0	13.04	2021.0
5.12	697.6		
	50°		
1.09	191.5	10.31	1961.0
3.76	664.0		

%	b.t.	%	b.t.
	760 mm		
4.30	50	7.67	28
4.49	48	8.00	26
4.76	46	8.43	24
5.03	44	8.92	22
5.21	42	9.42	20
5.48	40	10.07	18
5.84	38	10.79	16
6.10	36	11.50	14
6.45	34	12.43	12
6.80	32	13.34	10
7.24	30	14.38	8

Roozeboom, 1884 and 1885

t	p	t	p
	L_2 satd.		
0.1	1131	11.0	1703
3.05	1273	11.9	1756
6.05	1418	12.1	1773
9.05	1583	13.0	1823

t	p dissoc.	t	p dissoc.
	(7+1)		
0	305	9.55	1088
2.80	432	9.60	1094
4.45	519	9.85	1147
4.60	530	9.90	1156
4.65	534	10.00	1177
4.90	552	10.20	1223
6.00	666	10.70	1356
6.75	743	10.80	1368
7.05	754	10.95	1410
7.35	801	11.30	1503
7.60	815	11.55	1596
8.40	926	11.75	1666
8.95	1008	12.05	1757
9.05	1022	12.10	1773

t	%	t	%
	sat.sol.		
0	19.09	7	14.96
2	17.89	8	14.38
4	16.74	10	13.34
5	16.18	15	11.11
6	15.54	20	9.42

t	%	p	t	%	p
		L + (7+1)			
0	9.42	310	7	14.82	752
2	10.55	390	8	16.04	870
4	11.89	495	10	19.09	1180
6	13.86	660	12.1	25.67	1773

8.62% f.t. = -3.1°

Tammann and Krige, 1925

p	t	p	t
L+V+ice+(6+1)			
760	-2.6		
	L + (6+1)		
1188.0	+10.0	303.6	0
884.0	8.2	231.4	-2.0
808.0	7.4	208.4	-3.0
583.2	5.2	194.8	-4.0
455.0	3.6	149.8	-8.0
391.5	2.4	127.1	-12.0

Maass and Maass, 1928

%	p	%	p
		10°	
4.57	243	18.91	1245
8.19	452	19.86	1288
11.64	674	23.10	1543
14.75	874	100.00	1733
		16.5°	
4.48	310	18.57	1519
8.03	572	19.52	1560
11.42	844	22.71	1884
14.31	1114	100.00	2188
		22°	
4.40	378	18.22	1789
7.88	693	19.14	1861
11.17	1022	22.32	2222
14.04	1326	100.00	2641
		25°	
6.9	662	22.4	2469
		27°	
4.32	448	17.85	2063
7.71	810	21.86	2556
10.95	1183	100.00	3142
13.74	1528		

t	p	t	p
	$V + L_1 + L_2$		
10.0	1666	19.0	2348
11.0	1722	22.0	2541
11.3	1752	22.7	2589
16.5	2044	25.0	2774
16.5	2098	27.0	2973
18.0	2196		

Terres and Rühl, 1934

mol%	sat.t.	sat.t. inf.
10	93	23
20	121	-
30	129	-
40	132	-
50	132.5	-
60	129	-
70	123.5	-
80	113.5	-
90	94.5	-

Schoenfeld, 1855

t	absorption coeff.	t	absorption coeff.
0	79.789	21	37.970
1	77.210	22	36.617
2	74.691	23	35.302
3	72.230	24	34.026
4	69.828	25	32.786
5	67.485	26	31.584
6	65.200	27	30.422
7	62.973	28	29.314
8	60.805	29	28.210
9	58.697	30	27.161
10	56.647	31	26.151
11	54.655	32	25.178
12	52.723	33	24.244
13	50.849	34	23.347
14	49.033	35	22.489
15	47.276	36	21.668
16	45.578	37	20.886
17	43.939	38	20.141
18	42.360	39	19.435
19	40.838	40	18.766
20	39.374	second series	
4.0	68.635	26.0	32.130
10.0	55.791	32.0	24.445
15.6	46.304	36.0	20.921
21.0	37.015		

Freese, 1920

t	*c	t	c
0	22.829	21	10.887
4	19.981	22	10.503
10	16.209	23	10.131
15	13.540	24	9.762
16	13.047	25	9.408
17	12.589	30	7.867
18	12.1139	35	6.464
19	11.701	40	5.411
20	11.290		

*c=g in 100cc water

Baume and Tykociner, 1914

%	f.t.	%	f.t.	E
0.8	0	17.4	+12.2	-
0.8	-0.2	17.8	+12.1	-74.0
2.8	-0.2	26.6	+12.2	-73.9
3.3	+3.5	30.7	+12.1	-73.9
5.1	+7.7	39.7	+12.2	-73.9
5.5	+6.8	47.0	+12.3	-73.9
7.1	+9.3	73.9	+12.2	-73.9
7.9	+12.1	95.1	+12.2	-73.9
9.3	+12.2	97.7	-73.4	-
12.4	+12.0	100	-72.5	-
14.7	+12.2			

Terres and Rühl, 1934

mol%	f.t.	mol%	f.t.
1	-2.3	99.3	-47.5
2	+1	99.4	-53
3	+2.3	99.5	-62
4	+3	99.6	-70.5 E_2
99.0	-37	99.7	-66.5
99.1	-39.5	99.8	-63.5 tr.t.α-β
99.2	-43	99.9	-64.5
		100.0	-71 α
			-63.5 β

E_1: -2.5°

Schoenfeld, 1855

t	d
sat.sol.	
0	1.06091
10	1.05472
20	1.02386
40	0.95548

Schiff and Bunsen, 1858

%	d	%	d
	4°		
0	1.0000	11	1.0311
1	.0024	12	.0343
2	.0049	13	.0376
3	.0075	14	.0410
4	.0102	15	.0445
5	.0130	16=	.0480
6	.0158	17	.0517
7	.0187	18	.0553
8	.0217	19	.0591
9	.0247	20	.0629
10	.0278	21	.0667

t	d	t	d
	sat. sol.		
0	1.0608	13	1.0475
1	.0595	14	.0448
2	.0584	15	.0415
3	.0576	16	.0382
4	.0569	17	.0346
5	.0562	18	.0307
6	.0556	19	.0265
7	.0551	20	.0221
8	.0548	21	.0175
9	.0546	22	.0125
10	.0544	23	.0074
11	.0524	24	0.9964
12	.0500		

Roozeboom, 1884 and 1885

%	t	d
	sat.sol.	
9.42	20	1.041
11.11	15	.057
13.34	10	.065
16.18	5	.076
19.09	0	.099

Giles and Schearer, 1886

%	d	%	d
	15.5°		
0	0.999	7	1.0342
1	1.0041	8	.0392
2	.0092	9	.0443
3	.0142	10	.0494
4	.0192	11	.0544
5	.0242	12	.0595
6	.0292	13	.0646

Almen, 1898

%	a
15.5°	
1	0.00140
4	.00145
7	.00147
10	.00149
13	.00151

a = Dv/G, where G is the absorbed volume of SO_2

Pagliani and Battelli, 1884

%	η 0°	12.1°
0	1775	1232
12.2	1982	1381
18.0	2175	-

Thompson and Promisel, 1930

%	10°	20°	κ 30°	40°
8	520	526	541	533
9	540	550	562	551
10	560	573	584	570
11	581	597	605	590
12	602	620	626	609
13	622	644	648	627
14	643	667	669	647
15	663	690	691	666
16	684	709	708	680
17	703	725	720	691
18	713	738	730	701
19	729	749	738	708
20	739	757	743	713
21	749	764	748	716
22	755	767	753	715

Water + Selenium dioxide (SeO_2)

Manchot, 1922

%	f.t.	%	f.t.
0.99	-0.2	53.60	-20.0
4.88	-1.1	57.00	-23.0
21.83	-5.0	58.00	-21.0
33.00	-8.2	61.60	-12.5
37.64	-9.9	63.40	-7.0
40.65	-11.3	68.82	+7.0
44.00	-13.0	72.52	+22.0
47.03	-14.9	77.50	+42.0
49.10	-16.5	82.50	+65.0

Water + Selenious acid (SeO_3H_2)

Etard, 1894

%	f.t.
42.2	-10
45.8	- 2
54.3	+ 9
73.7	+34
79.6	+55
79.4	+90

Traube, 1895

%	d
	15°
0.00	0.99913
5.43	1.03798
8.81	.06379
12.14	.08974
17.94	.13855

Stone, 1923

%	n_D	%	n_D
	20°		
0.00	1.3330	37.62	1.3850
3.97	.3371	38.71	.3871
7.09	.3408	39.39	.3883
9.59	.3438	40.74	.3912
11.68	.3461	41.66	.3931
13.03	.3480	42.59	.3946
13.85	.3490	43.17	.3961
15.56	.3513	43.44	.3962
16.96	.3532	45.22	.4011
18.61	.3551	48.11	.4065
19.54	.3562	50.22	.4112
21.11	.3586	52.33	.4152
21.96	.3599	54.42	.4212
23.40	.3621	57.02	.4280
24.87	.3640	60.09	.4364
25.53	.3640	62.71	.4431
26.57	.3665	64.66	.4494
27.60	.3681	66.44	.4562
28.68	.3701	68.91	.4631
30.27	.3727	70.70	.4683
31.25	.3742	72.91	.4771
32.32	.3761	74.43	.4830
33.64	.3784	75.77	.4889
34.84	.3803	77.64	.4965
36.95	.3837	79.14	.5012

Water + Selenium Trioxide SeO_3)

Dostal, 1955

%	f.t.	E	solid phase
87.10	60.4	-	A
87.30	62.0	-	"
87.42	62.2	-	"
87.50	62.3	-	"
87.57	62.4	-	"
87.69	61.9	-	"
87.90	60.9	-	"
88.15	59.7	-	"
88.45	57.8	12.3	"
88.78	55.8	12.4	"
89.25	52.5	12.2	"
89.62	49.3	12.3	"
89.80	47.8	25.3	-
89.80	47.8	12.3	A
90.22	43.5	25.3	A+B
90.30	42.1	25.3	-
90.51	39.2	12.5	A
		25.3	
90.55	37.5	25.3	-
90.63	37.3	12.4	A
		25.4	
90.90	33.0	25.4	-
90.97	32.5	25.4	B
90.97	32.5	12.6	A
91.02	30.9	25.4	B
91.02	30.9	12.5	A
91.13	29.5	12.5	A
		25.3	
91.26	27.7	25.4	-
91.30	26.6	25.4	-
91.37	25.5	25.4	-
91.44	25.4	-	-
91.44	24.3	12.5	A
91.59	25.1	-	-
91.59	25.1	12.6	A
91.59	19.8	-	A
91.65	25.1	17.8	-
91.80	24.7	17.8	-
91.80	15.0	12.4	A
92.00	24.4	17.8	-
92.17	23.7	17.8	-
92.25	23.1	17.8	C
92.25	14.9	12.4	A
92.25	23.1	17.8	B
92.30	22.6	17.8	-
92.37	22.2	17.8	-
92.37	22.2	17.5	A
92.45	22.1	17.8	-
92.65	20.7	17.9	-
92.75	18.8	17.8	-
92.81	17.9	-	-
92.90	18.2	17.8	-
93.08	18.4	17.8	-
93.15	18.7	17.9	-
93.22	18.7	17.8	-
93.40	18.8	-	-
93.68	18.6	-	-
93.85	18.4	-	-
94.04	17.8	13.2	-
94.27	16.8	13.4	-
94.50	15.5	13.4	-
94.68	13.8	-	-
94.80	15.1	13.4	-
94.93	20.5	13.5	-
95.05	25.9	13.5	-
95.10	32.7	13.5	-
95.25	34.0	13.6	C
95.37	43.2	13.5	-
95.66	53.0	13.4	-
95.85	59.6	13.5	-
95.94	65.6	13.3	-
96.51	79.2	13.4	-
96.72	85.0	-	-
97.50	97.2	-	-
98.18	105.6	-	-
98.71	110.6	-	-
99.50	117.3	-	-
99.81	118.8	-	-

A = H_2SeO_4 B = $H_4Se_3O_{11}$ C= $H_2Se_2O_7$

solid phase	%	f.t.
H_2SeO_4	87.57	62.4
H_2SeO_4=$H_4Se_3O_{11}$	91.4	25.4 tr.t.
$H_4Se_3O_{11}$	91.36	25.4
H_4SeO_3-$H_2Se_2O_7$	92.8	17.8 E
H_2SeO_4-$H_2Se_2O_7$	91.9	12.4 E metast.
$H_2Se_2O_7$	93.37	13.8
$H_2Se_2O_7$_SO_3	94.7	13.5 E

Water + Selenic acid (SeO_4H_2)

Kremann and Hofmeier, 1908

%	f.t.	%	f.t.
0	0	57.7	-56.9 A
5.1	-1.3	61.8	-61.0 A
8.3	-3.1	64.8	-54.2 A
10.6	-3.9	67.3	-52.6 A
16.6	-7.0	69.4	-51.7 A
19.0	-8.3	70.8	-52.6 A
21.0	-10.5	74.7	-53.3 B
23.9	-12.2	78.4	-24.5
25.8	-15.3	79.0	-20.0
30.1	-21.4	79.9	-7.0 A
31.9	-23.3	81.5	+3.5
33.0	-23.2	83.2	13.1
33.8	-26.2	84.9	21.0
34.0	-24.9	86.8	24.0
35.7	-28.3	87.0	25.0 A
35.9	-31.1	88.7	25.8
38.9	-37.2	90.7	21.9
42.0	-48.2	92.7	26.3
42.3	-49.0	94.9	40.2
43.1	-56.9 A	99.9	59.9
43.7	-55.6		
45.2	-63.5		

A= (1+1) B=(4+1)

E_1 : 43.0% -83° E_2 : 91.5% 19°

tr.t. : 74.0% -56.°

Kapustinski and Jdanova, 1951

%	f.t.	%	f.t.	
2.96	-1.5	66.23	-51.5	(1+1)
4.65	1.9	68.23	51.9	
7.12	2.1	69.95	53.7	
8.09	2.6	70.39	55.5	
9.79	3.7	74.08	48.5	
10.86	4.2	74.31	44.3	
14.36	6.2	75.43	42.6	
16.58	6.9	76.61	29.8	
18.80	9.2	77.75	19.5	
21.63	9.9	78.75	20.0	
23.27	10.9	79.52	14.2	
25.19	12.4	80.05	8.6	
28.44	16.6	80.45	6.6	
30.88	19.2	81.03	-0.5	
31.23	20.5	82.38	+7.4	
33.11	25.2	84.80	19.8	
34.78	25.8	86.85	24.7	
40.17	35.7	87.79	25.4	
41.75	45.5	88.97	23.8	
42.44	54.1	89.96	21.9	
46.71	70.5	90.39	13.9	
47.76	74.1 E	91.96	28.9	
54.26	71.6	97.60	+50.8	
55.60	63.2			
59.04	58.0			
59.89	55.7			
62.15	54.1			
64.13	-52.9			
(4+1)	(2+1)	(1+1)		

Vuillard, 1956 (fig.)

%	f.t. I	f.t. II	E I	E II	tr.t.
0	0	-	-	-	-
10	-3	-	-	-88	-
20	-9	-	-	-88	-
30	-19	-	-	-	-
40	-39	-	-	-	-
45	-60	-	-83.4	-	-
49	-83.4E	-	-83.4	-	-
50	-78	-88E	-83.4	-88	-
52	-72	-78	-83.4	-88	-
54.8	-68.5	-68.5	-83.4	-88	-68.5
60	-56	-	-83.4	-88	-68.5
66.8	-51.7	-	-	-	-
70	-54.5E	-	-54.5	-57	-
74	-29	-57 E	-	-57	-
75.5	-27	-45	-	-57	-
77.7	-24	-	-54.5	-57	-24
85	+17	-	-	-	-24
90	+27	-	-	-	-

Diemer and Lenher, 1909

20°

%	d	%	d
0.00	0.9982	52.50	1.5590
0.89	1.0048	53.91	.5795
1.33	.0083	54.42	.5870
2.58	.0177	55.47	.6029
3.60	.0247	56.07	.6112
4.50	.0332	57.80	.6410
5.20	.0393	58.45	.6498
6.62	.0496	59.38	.6618
7.12	.0533	60.73	.6937
7.37	.0553	61.25	.7030
8.01	.0608	62.00	.7169
9.33	.0710	63.72	.7472
10.05	.0768	64.37	.7641
11.66	.0904	65.70	.7960
12.50	.0974	66.06	.8042
13.48	.1040	67.31	.8277
14.22	.1110	68.08	.8405
15.54	.1231	69.37	.8716
16.67	.1332	70.12	.8898
17.79	.1438	70.80	.9053
18.48	.1503	71.42	.9209
19.07	.1561	73.60	.9610
20.48	.1692	74.48	.9810
21.81	.1818	75.08	.9953
22.54	.1888	76.21	2.0235
23.63	.1993	77.66	.0625
24.88	.2105	78.11	.0709
25.94	.2210	79.95	.1160
26.72	.2290	80.83	.1422
27.31	.2356	81.59	.1599
28.06	.2429	82.58	.1831
28.26	.2461	83.11	.2008
29.00	.2546	84.15	.2300
30.10	.2684	84.44	.2387
31.40	.2813	85.10	.2552
32.82	.2971	86.08	.2833
33.30	.3028	87.35	.3117
34.25	.3138	88.14	.3340
35.72	.3300	89.50	.3762
36.45	.3403	90.35	.4115
37.38	.3669	91.50	.4360
39.51	.3752	92.83	.4598
40.62	.3895	93.42	.4765
41.74	.4021	94.26	.4882
42.82	.4155	95.28	.5144
43.82	.4284	96.90	.5445
44.02	.4306	97.66	.5647
45.96	.4589	98.60	.5827
46.45	.4663	99.20	.5925
47.75	.4865		
48.61	.5012		
49.70	.5154		
50.55	.5281		
51.30	.5389		

Kapustinski and Jdanova, 1951

%	d	%	d
	25°		
3.32	1.02393	67.45	1.84057
4.23	.03102	68.95	.87392
9.12	.06988	71.00	.92075
14.11	.11205	74.14	.99657
20.71	.17244	77.33	2.07819
25.36	.21857	79.34	.13311
30.76	.27566	80.34	.16009
36.70	.34445	81.38	.18983
41.81	.40790	83.37	.25314
46.97	.47850	87.23	.36600
52.90	.57090	88.25	.39584
57.88	.65147	89.25	.42355
60.98	.70678	90.31	.45411
63.02	.74582	92.36	.50817
63.92	.76644	94.33	.55731
65.99	.80964	97.27	.61757
	0°		
73.93	2.1377	86.99	2.4343
75.84	.1888	88.06	.4650
77.66	.2429	89.79	.4885
78.95	.2734	91.01	.5181
80.11	.3092	91.49	.5262
81.44	.3254	92.01	.5345
82.64	.3498	92.58	.5433
84.10	.3795	93.30	.5599
85.75	.4125		

%	η (water=1)	%	η (water=1)
	25°		
4.23	1.06	67.45	6.15
9.12	1.13	68.95	6.89
14.11	1.23	71.00	7.92
20.71	1.39	74.14	10.21
25.36	1.51	77.33	13.49
30.77	1.68	79.34	16.40
36.70	1.92	80.34	17.92
41.81	2.21	81.38	19.82
46.97	2.53	83.37	24.27
52.90	3.07	87.23	32.11
57.88	3.72	88.25	33.83
60.98	4.26	89.25	35.29
63.02	4.75	90.31	36.16
63.92	5.03	92.36	37.08
64.92	5.40	94.33	37.07
65.99	5.60	97.27	37.22

Stone, 1923

%	n_D	%	n_D
	20°		
0.00	1.3330	61.88	1.4332
4.62	.3383	63.05	.4352
6.66	.3409	64.33	.4382
9.28	.3443	65.89	.4416
11.99	.3476	67.18	.4461
13.25	.3491	68.71	.4499
14.32	.3503	70.27	.4538
15.85	.3527	71.39	.4572
17.87	.3558	73.22	.4616
18.40	.3565	74.75	.4659
20.00	.3586	76.01	.4696
21.77	.3610	77.17	.4728
22.29	.3621	79.21	.4792
23.73	.3636	79.75	.4811
25.21	.3660	81.33	.4860
27.09	.3685	83.08	.4906
27.53	.3691	84.31	.4946
28.63	.3706	84.69	.4950
29.68	.3723	85.33	.4973
31.05	.3751	86.20	.4993
33.22	.3780	86.79	.5006
33.84	.3794	87.10	.5010
35.00	.3827	88.20	.5047
36.18	.3834	88.91	.5065
38.01	.3856	89.64	.5079
39.34	.3881	90.16	.5088
40.52	.3901	91.95	.5122
41.68	.3916	92.75	.5136
43.24	.3947	93.39	.5146
44.77	.3980	94.31	.5155
46.62	.4013	94.41	.5158
50.53	.4078	95.63	.5168
52.09	.4115	95.89	.5168
54.19	.4149	97.28	.5172
54.24	.4151	98.17	.5171
55.76	.4189	98.36	.5170
57.38	.4221	98.70	.5160
58.90	.4258	98.98	.5160
60.41	.4289		

Water + Selenium oxychloride ($SeOCl_2$)

Waring, Steingiser and Hyman, 1943

mol%	d	mol%	d
25°			
0.00	0.9969	42.40	2.1775
8.45	1.4770	57.09	.2785
14.76	1.7015	67.75	.3354
28.50	2.0120	100.00	.4208
34.05	2.0900		

Water + Selenium dioxide.hydrochloric acid (SeO_2HCl)

Ditte, 1877

t	p dissoc.	t	p dissoc.
10	0	75	313
30	15	76	338
40	48	100	664
55	142	118	1012

Water + Selenium dioxide.di(hydrochloric acid) ($SeH_2O_2Cl_2$)

Ditte, 1877

t	p dissoc.	t	p dissoc.
-20	60	15.0	483
-18.4	70	15.2	506
0	219	22.5	672
+12	418	33.0	995
13.5	447		

H_2O + Sulfur anhydride (SO_3)

See also the systems :
Water + Sulfuric acid and
Sulfur anhydride + Sulfuric acid

Knietsch, 1901

%	p	b.t.	%	p	b.t.
50.36	750	140	82.3	759	212
57.88	750	162	83.4	759	170
66.44	750	202	86.45	759	125
72.84	750	240	89.5	759	92
78.56	750	292	93.24	759	60
80.44	750	317	99.5	759	43
81.56	753	273			

Rüdorff, 1862

%	f.t.
4.16	- 2.05
7.96	- 4.50
14.72	-11.75
17.75	-17.50

Knietsch, 1901

%	f.t.	%	f.t.
0	0	70	+ 4.0
1	- 0.6	71	- 1.0
2	- 1.0	72	- 7.2
3	- 1.7	73	-16.2
4	- 2.0	74	-25.0
5	- 2.7	75	-34.0
6	- 3.6	76	-32.0
7	- 4.4	77	-28.2
8	- 5.3	78	-16.5
9	- 6.0	79	- 5.2
10	- 6.7	80	+ 3.0
11	- 7.2	81	+ 7.0
12	- 7.9	81.63	+10.0
13	- 8.2	82	+ 8.2
14	- 9.0	83	- 0.8
15	- 9.3	84	- 9.2
16	- 9.8	85	-11.0
17	-11.4	86	- 2.2
18	-13.2	87	+13.5
19	-15.2	88	+26.0
20	-17.1	89	+34.2
21	-22.5	90	+34.2
22	-31.0	91	+25.8
23	-40.1	92	+14.2
61	-40.0	93	+ 0.8
62	-20.0	94	+ 4.5
63	-11.5	95	+14.8
64	- 4.8	96	+20.3
65	- 4.2	97	+29.2
66	+ 1.2	98	+33.8
67	+ 8.0	99	+36.0
68	+ 8.0	100	+40.0
69	+ 7.0		

Giran, 1913 (fig.)

%	f.t.	%	t.t.
82	+8.0	91	32
84	-3	92	23.5
85.2	-9.5	93	+4.0 E
86	+8	94	+20
87	22	94.7	+26.0
88	29	96	27
89	33.5	98	29.5
90	35 (1+2)	100	30

Vuillard, 1954 (fig.)

%	f.t.	tr.t.
0	0	-
10	- 6	-
20	-22	-125
30	-62 E	"
31	-72 E_m	"
35	-54	-120
48	-28 (5+1)	
53	-38	-110
55	-48 E_m	-108
57	-42 E^m	"
60	-39 (3+1)	-100
68	+ 8 (2+1)	-
77	-36 E	-107
82	+11 (1+1)	- 98
89	+34 (1+2)	"

E_m = Metastable eutectic .

Brayford and Wyatt, 1956

%	f.t.	%	f.t.
90.48	34.03	89.82	35.05
90.42	34.23	89.73	34.98
90.33	34.47	89.64	34.87
90.23	34.69	89.55	34.69
90.17	34.82	89.46	34.48
90.09	34.92	89.36	34.21
90.00	35.00	89.27	33.92
89.91	35.06		

(1+2) f.t. = 35.07°

Bineau, 1848

%	d SO_3	d SO_4H_2	%	d SO_3	d SO_4H_2
		15°			
1	1.008	1.0060	51	1.529	1.407
2	.016	.012	52	.544	.417
3	.024	.018	53	.555	.427
4	.033	.0249	54	.572	.437
5	.040	.031	55	.584	.447
6	.048	.038	56	.599	.4574
7	.057	.0455	57	.614	.468
8	.066	.0547	58	.626	.479
9	.075	.060	59	.641	.489
10	.084	.067	60	.655	.500
11	.094	.0746	61	.674	.511
12	.103	.082	62	.688	.522
13	.113	.090	63	.700	.533
14	.122	.097	64	.715	.544
15	.132	.105	65	.729	.556
16	.141	.1126	66	.741	.577
17	.149	.120	67	.754	.579
18	.159	.128	68	.769	.591
19	.169	.135	69	.780	.603
20	.179	.143	70	.791	.614
21	.189	.1506	71	.801	.626
22	.199	.158	72	.809	.638
23	.209	.167	73	.818	.650
24	.219	.173	74	.824	.662
25	.228	.181	75	.829	.674
26	.238	.189	76	.833	.685
27	.247	.197	77	.836	.697
28	.257	.2055	78	.838	.709
29	.267	.214	79	.839	.721
30	.277	.222	80	.840	.733
31	.287	.230	81	.841	.744
32	.299	.238	82	-	.755
33	.309	.2465	83	-	.766
34	.319	.255	84	-	.776
35	.331	.263	85	-	.785
36	.343	.271	86	-	.793
37	.353	.280	87	-	.801
38	.366	.288	88	-	.808
39	.377	.2964	89	-	.815
40	.389	.305	90	-	.821
41	.400	.314	91	-	.826
42	.411	.328	92	-	.830
43	.426	.332	93	-	.833
44	.439	.341	94	-	.8340
45	.450	.350	95	-	.8360
46	.464	.360	96	-	.8368
47	.477	.369	97	-	.839
48	.489	.378	98	-	.8390
49	.500	.3874	99	-	.841
50	.516	.397	100	-	.8410

N.B. % are calculated in SO_3 or H_2SO_4 for the considered densities .

Thomsen, 1870, 1871 and 1882

mol %	d	mol %	d
	18°		
16.5	1.4722	2	1.0692
9.1	.2870	1	.0355
4.8	.1593	0.5	.0180

Winkler, 1899

d	% SO_3	% SO_4H_2
20°		
1.835	75.31	92.25
.840	77.38	94.79
.845	79.28	97.11
.850	80.01	98.01
.855	80.95	99.16
.860	81.84	98.46
.865	82.12	97.34
.870	82.41	95.76
.875	82.63	94.56
.880	82.81	93.58
.885	82.97	92.71
.890	83.13	91.84
.895	83.43	90.66
.900	83.48	89.93
.905	83.57	89.44
.910	83.73	88.57
.915	84.08	86.67
.920	84.56	84.05
.925	85.06	81.33
.930	85.57	78.66
.935	86.24	74.35
.940	86.78	71.97
.945	87.13	70.06
.950	87.41	68.54
.955	87.55	67.23
.960	88.22	64.13
.965	88.92	60.32
.970	89.83	55.36
.998	0	0

Knietsch, 1901

%	d	%	d
35°			
81.63	1.8186	91.18	1.9749
81.99	.8270	91.55	.9760
82.36	.8360	91.91	.9772
82.73	.8425	92.28	.9754
83.09	.8498	92.65	.9738
83.46	.8565	93.02	.9709
83.82	.8627	93.38	.9672
84.20	.8692	93.75	.9636
84.56	.8756	94.11	.9600
84.92	.8830	94.48	.9564
85.30	.8919	94.85	.9502
85.66	.9020	95.21	.9442
86.03	.9092	95.58	.9379
86.40	.9158	95.95	.9315
86.76	.9220	96.32	.9251
87.14	.9280	96.69	.9183
87.50	.9338	97.05	.9115
87.87	.9405	97.42	.9046
88.24	.9474	97.78	.8980
88.60	.9534	98.16	.8888
88.97	.9584	98.53	.8800
89.33	.9612	98.90	.8712
89.70	.9643	99.26	.8605
90.07	.9672	99.63	.8488
90.44	.9702	100.00	.8370
90.81	.9733		

%	d 15°	d 45°	%	d 15°	d 45°
78.35	1.8418	-	85.30	1.920	1.887
78.92	1.8429	-	87.14	1.957	1.920
79.18	1.8431	-	88.97	1.979	1.945
79.72	1.8434	-	90.81	2.009	1.964
80.53	1.8403	-	92.65	2.020	1.959
81.14	1.8388	-	94.48	2.018	1.942
81.44	1.8418	-	96.32	2.008	1.890
81.63	1.8500	1.822	98.16	1.990	1.864
83.46	1.888	1.858	100.00	1.984	1.814

Bright, Hutchison and Smith, 1946

%	d	%	d
25°			
48.21	1.4838	81.08	1.8291
55.09	.5749	81.27	.8282
59.73	.6433	81.53	.8367
64.73	.7125	82.81	.8530
69.34	.7709	83.48	.8629
72.71	.8035	85.73	.9060
77.78	.8301	86.95	.9317
79.47	.8326	91.68	.9912
79.64	.8328	92.33	.9940
80.42	.8321	93.65	.9920
45°			
48.39	1.4691	82.79	1.8345
55.21	.5604	83.50	.8443
59.87	.6277	83.94	.8553
64.73	.6936	85.77	.8857
69.34	.7453	86.92	.9104
72.61	.7832	88.62	.9351
77.78	.8110	90.22	.9536
79.50	.8148	91.61	.9605
80.58	.8137	92.49	.9592
81.32	.8112	93.90	.9441
81.34	.8104	96.08	.9117
81.35	.8112	98.73	.8195
60°			
48.10	1.4562	81.63	1.7956
54.93	.5516	82.78	.8197
59.73	.6131	83.16	.8231
64.51	.6771	83.49	.8295
69.13	.7364	84.29	.8397
72.26	.7651	85.80	.8689
75.61	.7881	86.94	.8924
77.07	.7950	88.61	.9160
79.32	.7990	90.14	.9290
80.60	.7983	91.61	.9328
81.28	.7963	92.29	.9233
81.63	.7960		
80°			
48.34	1.4411	81.62	1.7801
54.84	.5307	82.76	.8032
59.75	.5963	83.19	.8084
64.51	.6580	83.47	.8092
62.23	.7157	84.22	.8239
72.14	.7447	85.78	.8509
76.25	.7735	86.93	.8718
79.39	.7810	88.58	.8900
80.32	.7813	90.11	.9021
81.28	.7793		

Lidbury, 1902

t	velocity of crystallization (mm/sec.)
82.69 %	
-16.8	0.16
-15.2	0.15
- 9.9	0.081
- 8.0	0.066
- 5.1	0.044
82.4 %	
-17.3	0.24
-15.6	0.21
- 9.4	0.128
82.18 %	
-17.2	0.30
-13.5	0.27
81.97 %	
-14.6	0.44
-11.6	0.33
-10.5	0.33
- 7.2	0.33
- 4.7	0.32
81.76 %	
-10.5	0.97
- 8.0	0.87
- 5.2	0.74
- 3.5	0.72
0.0	0.58
81.44 %	
-11.0	3.8
- 7.8	3.5
0.0	2.45
81.35 %	
-10.0	2.5
- 7.0	2.35
0.0	1.75
81.16 %	
- 9.4	1.58
- 5.0	1.45
0.0	0.78
80.78 %	
-15.2	1.10
- 6.1	0.83

Grassi, 1851

mol %	t	π
33.5	13.5	24.2
25	14.6	25.0
20	16.5	27.1
16.5	14.7	27.9
14	14.2	28.3
9	14.6	31.5

Bright, Hutchison and Smith, 1946

%	η	%	η
25°			
48.21	5020	81.08	24000
55.09	7700	81.27	24370
59.73	11200	81.53	24770
64.73	17090	82.81	26010
69.34	21830	83.48	26650
72.71	21320	85.73	31000
77.78	19510	86.95	36590
79.47	20310	91.68	58640
79.64	20470	92.33	55400
80.42	21520	93.65	42710
45°			
48.39	3340	82.79	13490
55.21	4960	83.50	13760
59.87	6880	83.94	14180
64.73	9490	85.77	15960
69.34	11470	86.92	18100
72.61	11600	88.62	20890
77.78	11110	90.22	23240
79.50	11650	91.61	22060
80.58	12060	92.49	19110
81.32	12750	93.90	13640
81.34	12750	96.08	5880
81.35	12770	98.73	1140
60°			
48.10	2600	81.63	8800
54.93	3770	82.78	9160
59.73	5050	83.16	9270
64.51	6600	83.49	9490
69.13	7830	84.29	9660
72.26	8010	85.80	10760
75.61	7830	86.94	11830
77.07	7790	88.61	13230
79.32	7860	90.14	16660
80.60	8250	91.61	12250
81.28	8650	92.29	10830
80°			
48.34	1930	81.62	5610
54.84	2740	82.76	5910
59.75	3490	83.19	5980
64.51	4380	83.47	6090
62.23	5090	84.22	6290
72.14	5220	85.78	6820
76.25	5300	86.93	7330
79.39	5350	88.58	7810
80.32	5440	90.11	7900
81.28	5630		

Schwab and Kolb, 1955

%	η							
	20°	30°	40°	50°	60°	80°	100°	132°
82	28540	19990	-	10880	-	5420	3771	2370
83	29700	20780	-	11330	-	5660	3933	2468
85	34955	24040	-	12810	-	6260	4296	-
87	44710	29710	20720	15030	15030	6970	4647	-
88.5	-	36320	24400	17170	17170	-	-	-
89.5	-	41380	26680	18110	-	-	-	-
89.89	-	42600	26910	18065	-	-	-	-
90.5	-	43230	26860	17800	-	-	-	-
91	-	43110	26475	17300	-	-	-	-
92	72140	39260	23350	14890	-	-	-	-
93.7	48540	25480	-	9215	-	-	-	-

Knietsch, 1901

% (1+1)	minutes of flow	% (1+1)	minutes of flow
	23°		
0	100	97.7	139.7
9.5	100	98.6	140.4
18.7	100.3	100.3	145.7
27.8	101.3	100.9	147.0
37.3	102.6	101.9	147.7
46.4	106.0	103.4	151.0
55.9	109.3	104.4	155.6
65.2	114.6	106.8	166.9
74.4	125.8	108.8	170.8
81.5	138.4	111.2	198.7
86.1	141.7	113.2	192.0
86.8	142.0	115.6	145.0
89.2	139.7	118.1	125.8
93.8	129.8	120.1	109.9
96.3	137.1	122.5	100.7

Smits, Land and Bouman, 1921

%	seconds of flow		
	15°	40°	60°
88.84	327.2	141.2	80.8
82.13	-	135.6	78.8
81.72	246.2	-	-
81.55	244.4	130.4	78.2
81.42	236.8	-	-
80.53	236.8	120.4	75.6
77.55	-	101.6	77.4
76.27	241.4	-	-
75.72	-	111.4	67.8
75.33	248.6	-	-
75.19	254.4	-	-
75.03	-	116.0	70.2
73.96	-	117.2	70.6
72.69	-	117.2	70.8
72.08	282.4	-	-
69.72	-	121.4	70.4
69.60	275.0	-	-
64.78	-	103.6	62.6
63.76	207.6	-	-
63.28	-	96.0	59.2

Knietsch, 1901

% (1+1)	capillarity	% (1+1)	capillarity
	22°		
0	100	97.7	40.58
9.5	95.29	98.6	40.00
18.7	90.58	100.3	38.23
27.8	85.88	100.9	38.23
37.3	82.35	101.9	37.64
46.4	76.47	103.4	37.64
55.9	71.76	104.4	36.47
65.2	65.88	106.8	36.47
74.4	61.17	108.8	35.29
81.5	55.88	111.2	35.29
86.1	51.76	113.2	32.94
86.8	51.17	115.6	29.41
89.2	49.41	118.1	25.88
93.8	44.70	120.1	24.70
96.3	42.35	122.5	23.52

Kohlrausch, 1878

%	$\varkappa$	$\alpha.10^3$	$\beta.10^5$
	18°		
78.37	932	25	20
79.08	840	28	-
79.26	797	28	-
79.33	822	27	-
80.34	588	27	22
80.88	358.7	28	-
81.17	211.6	28	21
81.29	156.5	29	25
81.35	106.6	32	-
81.42	85.0	37	40
81.43	79.3	40	-
81.45	87.5	36	-
81.46	115.9	31	-
81.47	110.8	32	34
81.55	140.8	31	30
81.75	186.0	30	26
81.80	197.2	30	-
81.96	214.9	31	20
82.15	236.2	33	-
82.53	267.7	31	-
82.69	273	31	19
83.33	287	31	20
84.51	269	32	23
86.21	137.2	-	-
87.84	92.3	39	42
88.32	64.3	40	-
88.73	45.9	47	50
88.85	40.4	49	55
89.14	35.3	50	57
89.58	25.1	54	65
89.83	18.76	54	65
90.11	13.87	56	77
90.67	7.63	614	91

Bouty, 1889

%	$\varkappa$	
	0°	18°
78.44	539	941
75.04	623	1129
71.89	529	1005
70.41	496	991
69.03	468	957
64.00	611	1124
59.70	1004	1651
52.63	1895	2975
47.06	2703	4151
42.61	3350	5061
38.83	3880	5768
35.71	4318	6337
33.05	4650	6756
30.70	4877	7019
27.03	5096	7247
23.85	5202	7343
21.74	5239	7377
19.80	5205	7307
18.18	5103	7077
15.62	4812	6647
12.90	4250	5845
10.00	3543	4812
8.16	2992	4037
6.40	2426	3521
5.26	2015	2695
3.87	1510	2013
1.97	788	1040
0.794	343	452
0.398	179	237

Knietsch, 1901

%	κ	%	κ
	25°		
40.19	4250	81.53	175
48.80	3450	81.535	175
53.27	2900	81.59	134.2
57.54	2320	81.695	163
60.28	2100	81.74	187
61.07	1900	82.4	412
64.0	1670	83.44	455
65.14	1500	84.2	464
67.04	1350	84.7	464
68.53	1330	85.2	439
69.12	1310	86.3	340
70.23	1342	87.05	247
70.84	1350	88.3	150
73.4	1419	89.0	65.8
75.1	1430	90.5	42.7
76.73	1390	90.8	18.9
78.45	1258	91.6	11.4
78.52	1235	92.7	4.55
79.55	1250	93.4	3.74
80.22	886	94.4	1.30
80.98	512	95.4	0.790
81.27	455	96.35	0.250
81.345	370	96.87	0.150
81.425	286	98.16	0.016
81.455	238		

Thomsen, 1870, 1871 and 1882

mol %	U
18°	
16.5	0.545
9.1	0.700
4.8	0.821
2	0.918
1	0.956
0.5	0.977

Knietsch, 1901

%	U	%	U
	room temp.		
76.8	0.3691	91	0.370
78.4	.3574	92	.400
80	.350	93	.425
80.0	.3574	93.3	.4325
81.5	.3478	94	.455
82	.345	94.64	.4730
83.46	.3417	95	.495
84	.340	96	.535
85.48	.3391	96.52	.5598
86	.340	97	.590
87.13	.3392	97.99	.6526
88	.350	98	.650
88.75	.3498	99	.710
90	.360	99.8	.7413
90.1	.3599	100	.770
90.73	.3660		

Kunzler and Giauque, 1952

% (1+1)	U	% (1+1)	U
	25°		
102.66	0.3247	85.39	0.4384
102.35	.3255	84.77	.4420
101.72	.3278	84.20	.4430
101.37	.3288	84.20	.4442
101.03	.3299	83.59	.4464
100.71	.3317	82.99	.4482
100.39	.3327	82.40	.4491
99.97	.3370	81.74	.4501
99.78	.3358	80.98	.4507
99.91	.3363	80.19	.4515
99.22	.3353	79.33	.4528
98.65	.3366	78.26	.4542
98.01	.3406	77.30	.4558
97.38	.3422	76.19	.4570
96.77	.3447	75.08	.4602
96.13	.3489	73.84	.4627
96.05	.3499	72.49	.4674
95.51	.3526	71.05	.4726
95.30	.3549	69.40	.4787
94.59	.3594	66.12	.4940
93.89	.3647	62.68	.5117
93.20	.3703	58.69	.5360
92.49	.3764	52.58	.5777
91.81	.3823	46.499	.6262
91.16	.3881	36.301	.7149
90.48	.3946	29.075	.7742
89.82	.3996	27.401	.7877
89.20	.4068	22.545	.8228
88.61	.4133	17.350	.8616
87.96	.4184	13.457	.8897
87.35	.4237	13.192	.8917
86.71	.4285	10.775	.9113
86.03	.4346	10.127	.9142
	-20°		
75.177	0.4400	54.17	0.5537
71.96	.4519	49.040	.5900
69.66	.4636	43.156	.6343
65.86	.4827	37.333	.6834
62.51	.5020	30.662	.7346
58.14	.5302		

Knietsch, 1901

%	Q mix	%	Q mix
50	39	76	146
51	41	77	152
52	44	78	160
53	46.5	79	168
54	49	80	178
55	51.5	81	188
56	54	81.63	193
57	57	82	199
58	59.5	83	210
59	62	84	223.5
60	65	85	237.5
61	68	86	250
62	72	87	265
63	75	88	278
64	79	89	292
65	83.5	90	308
66	88	91	325
67	93	92	344
68	98	93	363
69	103	94	381
70	108	95	401
71	113	96	421
72	119	97	442
73	126	98	465
74	133	99	490
75	139	100	515

Morgen, 1942

mol %	Q mix	mol %	Q mix
2	780	50	10590
4	1510	52	10450
5	1890	55	10100
7	2620	60	9370
10	3650	65	8520
15	5150	70	7680
20	6630	75	6610
25	7800	80	5480
30	8790	85	4250
35	9470	90	3000
40	10000	95	1000
45	10410		

Sulfuric acid (H_2SO_4) + Sulfur trioxide (SO_3)

Luchinskii, 1956

%	p				
	20°	40°	60°	80°	100°
5	0.0017	0.012	0.07	0.31	1.19
10	0.012	0.07	0.36	1.48	5.23
15	0.06	0.32	1.44	5.46	17.85
20	0.24	1.17	4.81	16.8	50.9
25	0.80	3.59	13.5	43.7	124.1
30	2.02	8.44	29.65	90:2	242.5
35	cryst.	18.9	62.6	180.4	462
40	"	35.4	110.7	304	745
45	"	58.4	175.4	464	-
50	"	88.0	256	659	-
60	52.6	167.9	467	-	-
70	88.3	274	743	-	-
80	129.7	401.5	-	-	-
90	163.9	507	-	-	-
100	192.0	594	1608	-	-

%	p				
	120°	140°	160°	180°	200°
5	4.06	12.2	33.1	82.3	191.0
10	16.45	46.15	117.3	274.5	602
15	52.3	137.2	329	729	-
20	139.5	353	783	-	-
25	319.5	747	-	-	-
30	594	-	-	-	-

Luchinskii, 1940 (fig.)

mol %		b.t.
L	V	
50	50	155
20	49	160
11.5	44.4	180
8.3	41.2	200
5.7	37.1	220
2.9	32.4	240
1.97	25.9	260
0.99	17.4	280
0	0	308

Knietsch, 1901

%	f.t.	%	f.t.
$H_2SO_4 + SO_3$			
0	+10.0	55	+18.4
5	+ 3.5	60	+ 0.7
10	- 4.8	65	+ 0.8
15	-11.2	70	+ 9.0
20	-11.0	75	+17.2
25	- 0.6	80	+22.0
30	+15.2	85	+33.0
35	+26.0	90	+34.0
40	+33.8	95	+36.0
45	+34.8	100	+40.0
50	+28.5		

Luchinskii, 1940

mol %	f t
50	- 82
46 3	-109 3
44 4	- 97
37 5	- 52
28 6	- 20
16 7	- 1
0	+ 10

Wasif, 1955

m*	f.t.
0	10.38
0.04	10.28
0.08	10.18

*m : moles sulfur trioxide in 1000 g sulfuric acid .

Robles and Moles, 1934

M (1+1)*	f.t.	M (1+1)*	f.t.
f.t. H_2SO_4 = 10.50°			
0.148	10.174	0.995	7.525
0.196	9.969	1.000	7.601
0.420	9.453	3.320	-1.07
0.466	9.149	5.040	-7.30

* M (1+1) in the system : $H_2SO_4 + H_2SO_4 . SO_3$

%	f.t.	%	f.t.
a) $H_2O + H_2SO_4$ funing			
1.28	10.03	4.33	8.76
1.48	9.94	4.39	8.89
1.54	9.902	5.18	8.485
1.76	9.827	5.65	8.28
2.76	9.48	5.87	8.37
2.95	9.32	7.20	7.834
3.30	9.221	8.25	6.90
3.34	9.182	9.08	7.775
b) $H_2SO_4 . SO_3 + H_2SO_4$			
1.375	10.154	7.50	8.259
1.420	10.223	9.65	7.525
1.838	10.075	9.70	7.601
2.20	9.980	10.50	7.250
3.12	9.822	13.50	5.975
3.28	9.596	16.60	5.295
3.71	9.353	19.95	3.995
4.07	9.453	23.30	2.87
4.68	9.150	27.75	1.90
5.45	8.899	32.00	0.45
6.32	8.532		
c) $H_2SO_4 . SO_3 + H_2SO_4$ old			
1.313	10.05	15.79	4.82
1.54	9.92	17.70	3.83
2.27	9.62	20.84	3.40
2.866	9.45	21.50	2.60
3.28	9.23	24.50	1.55
4.74	8.65	25.47	2.00
5.611	8.50	27.90	0.19
7.70	7.45	30.26	0.65
8.977	7.35	32.00	-1.07
9.65	6.76	35.97	-1.00
11.65	5.85	40.43	-2.30
12.19	5.70	45.45	-4.80
14.70	4.83	50.25	-5.90

Chapman and Messel, 1885

%	d	%	d
	26.6°		
8.3	1.842	60.8	1.992
30.0	1.930	65.0	1.992
40.0	1.956	69.4	2.002
44.5	1.961	72.8	1.984
46.2	1.963	80.0	1.959
59.4	1.980	82.0	1.953

Gavelle, 1913

%	d	%	d
	20°		
0.58	1.8427	19.86	1.9120
3.54	.8545	24.48	.9275
10.26	.8799	27.06	.9352
13.51	.8913	30.17	.9451
16.97	.9022		

Gillespie and Wasif, 1953

m	d
25°	
0.0190	1.8270
0.0470	.8280
0.2250	.8330
0.3550	.8360
0.5360	.8407
0.6920	.8439
0.8350	.8480

m = moles (1+1) in 1000 g sulfuric acid .

Dunstan and Wilson, 1908

%	η
60°	
70.0	11470
46.0	17910
40.6	20450
27.72	17530
21.5	14880
16.3	13830
0.0	8320

Gillespie and Wasif, 1953

m	η
25°	
0.0190	24540
0.0470	24540
0.2250	24570
0.3550	24660
0.5360	24740
0.6920	24780
0.8350	24820

m = moles (1+1) in 1000 g sulfuric acid .

Wasif, 1955

m*	t	$\varkappa \cdot 10^3$
0	10.38	105
0.04	10.28	115
0.08	10.18	120

*m : moles sulfur trioxide in 1000 g sulfuric acid .

Hetherington, Hub and al., 1955

m	ϰ	m	ϰ
	25°		
0.6118	223.3	0.1596	138.5
0.5942	221.0	0.1538	137.1
0.5458	213.6	0.1480	135.9
0.4800	203.1	0.1322	131.8
0.4008	189.3	0.1160	127.9
0.3182	173.5	0.1040	124.0
0.2872	167.0	0.0854	120.1
0.2526	159.8	0.0698	116.1
0.2310	154.9	0.0544	112.4
0.2132	150.9	0.0386	109.1
0.1954	146.9	0.0226	106.4
0.1788	142.4	0.0000	104.5
0.1660	139.7		

Water + Pyrosulfuric acid ($H_2S_2O_7$)

Gillespie and Wasif, 1953

m_a	$\varkappa$	m_a	$\varkappa$
25°			
1.5630	347.7	0.0661	131.5
1.1520	330.9	.0617	128.6
0.9944	320.5	.0571	127.5
.8101	304.0	.0509	123.4
.6195	282.6	.0431	120.5
.4671	255.4	.0401 ?	120.5
.3496	230.3	.0404	118.4
.2863	212.7	.0335	115.4
.2227	195.0	.0301	113.2
.2075	190.3	.0237	110.9
.1670	176.7	.0216	109.2
.1298	161.6	.0182	107.7
.1043	149.3	.0134	106.7
.0935	145.4	.0110	104.7
.0803	138.7	.0062	104.4
.0752	137.0	.0032	104.1
.0710	133.5	.0000	103.3

m_b	$\varkappa$	m_b	$\varkappa$
25°			
0.7859	759.1	0.0535	154.0
.6659	699.3	.0445	140.9
.5603	638.1	.0392	132.6
.4541	567.6	.0300	120.8
.3607	496.0	.0275	119.6
.2675	413.3	.0257	118.1
.1746	312.8	.0197	111.4
.1442	275.8	.0153	109.8
.1149	238.5	.0100	105.3
.0946	210.5	.0068	105.1
.0740	183.2	.0060	140.8
.0635	167.3	.0000	103.3

m_a	$\varkappa$	m_b	$\varkappa$
10 4°			
0.0516	74.0	0.0064	59.9
0.0367	68.4	0.0200	68.1
0.0218	62.5	0.0363	82.6
0.0072	58.7	0.0678	113.9
0.0000	58.0	0.0990	144.7
		0.1472	188.2

m_a = molality of $H_2S_2O_7$ m_b = molality of H_2O

H_2O + Sulfuric acid (H_2SO_4)

Heterogeneous equilibria

Vapour pressure

Tate, 1863

Vapour pressure : only historical values

Tammann, 1885

%	p	%	p
100°			
11.18	723.6	38.49	494.5
15.57	702.8	40.91	461.2
27.05	622.5	41.69	448.4
30.67	586.9	43.61	420.4
33.69	554.2	48.01	367.1

Müller and Erzbach, 1885

%	t	* p rel	p^{15}
0.0	-	-	12.79
19.9	19.5	0.89	11.38
21.4	16.25	0.87	11.13
25.4	15.5	0.82	10.49
28.1	13.65	0.76	9.72
31.1	12.25	0.70	8.95
35.2	15.00	0.66	8.44
39.1	15.5	0.59	7.55
43.4	14.5	0.49	6.27
48.36	14.5	0.39	4.99
53.6	14.25	0.28	3.58
57.8	13.65	0.195	2.49
61.7	13.65	0.15	1.94
64.1	13.25	0.09	1.15
66.3	13.5	0.08	1.02
68.2	10	0.057	0.73
70.0	6	0.045	0.58

*p water at t = 1

p^{15} = vapour pressure interpolated at 15°

Helmholtz, 1886

t	p	t	p
	8.33 mol %		
0.0	3.2233	19.9	12.083
4.0	4.2719	24.7	16.213
7.3	5.3144	28.6	20.407
12.2	7.4008	33.2	26.603
15.2	8.9930		
	5.56 mol %		
0	3.775	20.3	14.635
4.2	5.084	24.5	18.899
6.5	5.969	29.2	24.972
8.5	6.834	39.0	43.282
13.0	9.231	48.0	69.208
14.8	10.345	50.0	79.592
16.4	11.419		

Lunge, 1889 (abstract in Sorel, 1889)

%	p		
	10°	15°	20°
44	4.4	6.1	8.5
46	4.0	5.5	7.7
48	3.7	5.0	7.1
50	3.3	4.5	6.5
52	3.0	4.0	5.8
54	2.6	3.6	5.0
56	2.2	3.1	4.3
58	1.9	2.6	3.5
60	1.6	2.1	3.0
62	1.4	1.8	2.0
64	1.2	1.6	2.2
66	1.1	1.4	1.8
68	0.9	1.2	1.5
70	0.8	1.0	1.3
72	0.7	0.8	1.0
74	0.5	0.6	0.6
76	0.4	0.4	0.5
78	0.3	0.3	0.4
80	0.2	0.2	0.3
82	0.1	0.1	0.2

%	p		
	25°	30°	35°
44	11.5	15.5	20.9
46	10.5	14.5	19.7
48	9.6	13.4	18.1
50	8.8	12.0	16.4
52	7.9	10.9	14.5
54	7.0	9.5	12.5
56	6.0	8.1	11.0
58	5.1	7.2	9.1
60	4.3	6.1	7.5
62	3.6	5.0	6.5
64	3.0	4.0	5.5
66	2.5	3.5	4.5
68	2.1	3.0	3.8
70	1.8	2.5	3.3
72	1.4	2.0	2.8
74	1.2	1.7	2.1
76	1.0	1.4	1.8
78	0.8	1.1	1.4
80	0.6	0.8	1.1
82	0.5	-	-

%	p		
	40°	45°	50°
44	28.1	37.4	48.3
46	26.3	33.6	44.4
48	23.9	30.5	40.1
50	21.4	27.4	35.9
52	18.9	24.1	31.5
54	16.5	21.1	27.8
56	14.2	18.5	24.1
58	12.0	15.8	20.4
60	10.0	13.0	16.9
62	8.1	10.5	13.9
64	6.5	8.2	10.9
66	5.4	6.5	8.9
68	4.5	5.4	7.2
70	3.8	4.4	5.9
72	3.2	3.6	4.8
74	2.6	3.1	3.9
76	2.1	2.5	3.0
78	1.7	2.1	2.4
80	1.3	1.6	1.9
82	0.9	1.1	1.4

%	p		
	55°	60°	65°
46	59.6	76.5	96.4
48	53.5	69.0	86.8
50	47.4	61.3	77.0
52	41.5	54.0	67.9
54	36.2	47.2	59.9
56	31.0	41.6	51.6
58	26.1	34.5	44.0
60	21.6	28.7	36.7
62	17.7	23.9	30.0
64	14.0	18.7	23.9
66	11.5	15.2	19.1
68	9.5	12.3	15.4
70	7.5	9.5	12.0
72	6.0	7.5	9.5
74	4.9	6.0	7.5
76	4.0	4.8	5.9
78	3.0	3.5	4.0
80	2.4	2.9	3.3
82	1.7	2.0	2.3

%	p		
	70°	75°	80°
48	107.2	132.1	-
50	95.6	118.1	152.0
52	84.5	104.5	131.2
54	74.8	92.6	116.1
56	65.0	80.6	100.9
58	55.4	68.4	86.2
60	46.1	56.7	72.3
62	37.7	46.2	59.7
64	30.3	37.4	48.0
66	24.2	30.3	39.0
68	19.4	24.4	31.4
70	15.5	19.8	25.5
72	12.0	15.4	20.0
74	9.5	12.1	15.4
76	7.5	9.5	11.8
78	5.7	7.5	8.5
80	4.1	5.0	6.2
82	2.7	3.2	3.9

%	p 85°	90°	95°
50	192.6	236.7	-
52	166.5	207.9	251.5
54	146.8	183.5	222.0
56	128.2	160.0	195.0
58	110.6	138.5	169.5
60	94.0	118.7	146.0
62	78.2	100.7	125.0
64	63.8	83.7	105.0
66	52.5	70.0	88.0
68	42.5	56.0	72.0
70	33.9	44.4	57.0
72	26.2	33.7	43.4
74	19.5	24.5	31.5
76	15.0	18.5	22.0
78	10.5	13,0	15.8
80	7.5	9.3	11.0
82	4.7	5.6	6.8

Dieterici, 1898 (fig.)

M	p	M	p
	20°		
0	4.579	5.598	2.952
0.607	4.535	8.164	2.077
1.040	4.453	9.430	1.679
1.903	4.284	11.69	1.206
2.681	4.065	16.19	0.569
3.792	3.664	22.18	0.164
4.908	3.238		

Smits, 1900

m	p	m	p
	0°		
0	4.579	0.50418	4.49187
0.02090	4.57564	1.11431	4.36843
0.04968	4.57081	2.1795	4.13654
0.24960	4.53696		

Knietsch, 1901

%	p 20°	40°	60°	80°	100°
61.7	3	10	25	68	143
70.9	2	3	8	22	57
81.4	1	1	1.5	3	10
89.23	0	0	0	0	1
90.98	0	0	0	0	0

Cumming, 1903

t	p	t	p
	44.8 %		
19.4	8.0	29.8	15.0
20.1	8.1	30.8	16.0
25.9	11.9		
	34.5 %		
14.2	8.9	27.9	19.1
24.2	15.1	30.7	22.7

Burt, 1904

t	p	t	p
	24.92 %		
55	95.5	85	363.3
60	120.7	90	439.1
65	153.7	95	532.6
70	192.7	100	640.8
75	240.2	104.80	759.6
80	295.1		
	30.46 %		
55	86.8	85	332.8
60	111.0	90	403.4
65	140.6	95	488.2
70	176.6	100	589.9
75	219.8	107.11	762.7
80	271.3		
	35.54 %		
55	78.2	85	301.5
60	100.1	90	366.0
65	126.8	95	445.4
70	159.5	100	537.7
75	199.0	105	646.2
80	245.0	109.56	757.2
	41.01 %		
60	84.2	90	317.2
65	107.4	95	386.0
70	136.5	100	465.8
75	171.6	105	560.2
80	211.8	110	670.2
85	261.3	113.21	749.4
	48.37 %		
60	59.8	95	293.5
65	79.0	100	355.6
70	100.4	105	429.8
75	126.4	110	515.4
80	157.8	115	621.9
85	195.9	120.82	754.0
90	241.2		
	54.24 %		
60	44.1	100	267.4
65	57.3	105	325.5
70	74.0	110	391.9
75	94.1	115	470.9
80	118.1	120	561.8
85	146.9	125	662.6
90	182.9	128.7	753.7
95	223.8		
	62.81 %		
70	35.4	110	210.8
75	45.9	115	255.3
80	58.0	120	308.0
85	73.6	125	368.5
90	92.3	130	438.3
95	115.8	135	517.6
100	140.0	140	612.8
105	171.5	145.85	745.0

	70.78 %		
90	35.5	135	246.3
95	44.8	140	291.2
100	57.0	145	355.4
105	71.0	150	426.9
110	89.0	155	501.5
120	140.4	160	589.0
125	171.3	166.47	740.05
130	205.2		
	74.36 %		
120	80.8	140	178.4
125	99.5	145	221.0
130	120.4	150	260.7
135	146.9		
	77.26 %		
110	35.1	155	229.7
115	44.8	160	273.9
120	56.1	165	326.6
125	69.3	170	387.1
130	85.5	175	454.3
135	105.1	180	525.7
140	127.7	185	610.8
145	156.4	189.87	748.3
150	188.9		
	78.50 %		
115	37.7	160	235.2
120	47.7	165	276.8
125	58.2	170	329.8
130	71.8	175	385.7
135	87.4	180	445.8
140	108.0	190	597.2
145	133.2	195	689.6
150	163.7	198.35	756.8
155	196.3		
	81.15 %		
135	52.8	155	124.6
140	65.3	160	150.4
145	82.6	165	180.9
150	101.7	170	218.9
	85.14 %		
140	31.5	190	227.9
145	39.6	195	269.5
150	51.3	200	307.4
155	63.4	205	361.3
160	77.6	210	424.6
165	94.1	215	495.2
170	115.0	220	577.8
175	137.9	225	670.3
180	164.2	228.55	752.9
185	194.1		
	86.61 %		
150	37.7	175	115.6
160	57.7	180	126.6
165	71.2	185	150.4
170	87.3		
	88.4 %		
155	31.8	185	102.3
160	38.9	190	120.5
165	48.5	195	145.2
170	59.4	200	171.5
175	72.4	205	205.3
180	87.3		
	91.01 %		
180	45.5	210	138.2
185	55.6	215	163.2
190	67.9	220	190.3
195	82.2	225	223.6
200	98.1	230	263.5
205	115.9		
	95.94 %		
205	34.1	225	72.2
210	40.8	230	85.9
215	50.1	235	106.0

Hacker, 1912

t	p	t	p
22.03%		32.59%	
1st series		1st series	
29.90	26.98	31.35	24.74
33.70	28.39	39.75	39.63
38.59	43.90	39.80	39.74
49.85	79.28	50.55	69.93
50.00	79.98	50.60	70.11
50.05	80.15	59.70	109.25
58.25	119.22	"	109.55
		"	109.02
2nd series		"	109.00
49.15	77.35	71.40	182.48
49.35	77.33	80.37	269.83
59.20	125.35	2nd series	
59.20	124.82	58.7	104.52
3rd series		59.1	106.34
39.25	85.52	59.25	107.32
39.45	86.06	59.4	107.46
69.80	202.67	59.65	108.27
80.75	324.02	79.65	262.37
81.45	325.33		
35.01%		41.54%	
1st series			
30.45	22.25	32.65	19.88
30.50	"	32.80	20.02
30.65	22.46	40.15	30.48
39.55	47.14	"	30.46
49.3	61.67	47.90	46.25
49.5	62.44	"	46.20
50.05	63.72	49.45	50.28
50.10	63.92	60.80	88.10
60.15	104.59	"	88.29
2nd series			
59.95	103.42		
69.90	161.63	47.49%	
70.8	170.78		
81.85	272.2	31.50	14.11
3rd series		31.65	14.27
40.05	37.33	31.90	15.16
"	37.24	40.05	23.19
48.15	57.39	40.15	23.29
48.20	57.51	49.90	39.64
49.60	61.54	49.95	38.94
59.8	101.23	60.40	67.80
71.07	171.35	"	67.69
		60.50	67.89

Hartung, 1920

%	p	%	p
30.10°			
0.00	31.73	5.31	31.09
0.60	31.66	8.63	30.58
1.94	31.51	11.79	30.02
3.38	31.34	17.63	28.71

Daudt, 1923

t	p	t	p
	68.40 %		
+ 15.4	0.754	- 15.7	0.0502
+ 7.7	0.3872	- 23.4	0.0274
+ 0.3	0.2059	- 30.5	0.0358
- 3.3	0.1490	- 37.5	0.0070
- 8.8	0.0950	- 44.5	0.0045
- 12.7	0.0675	- 45.3	0.0032
	74.84gr %		
+ 17.5	0.2825	- 5.0	0.0329
+ 6.0	0.0953	-11.5	0.0190
+ 2.0	0.0645	-17.0	0.0124
0.0	0.0515	-25.3	0.0060
- 1.5	0.0472		
	82.31 gr %		
+ 22.0	0.0600	+ 7.5	0.0160
+ 17.3	0.0396	- 6.0	0.0145
+ 14.0	0.0291	- 2.3	0.0079
+ 11.0	0.0226	- 8.3	0.0049
	85.00 gr%		
17.7	0.0226	6.0	0.0087
16.0	0.0187	4.5	0.0079
13.8	0.0154	2.1	0.0064
12.0	0.0141	0.2	0.0060
8.7	0.0097		

Mc Haffie, 1927

%	p
25°	
65.9	1.796
76.0	0.297
79.4	0.158
83.5	0.082

Hepburn, 1928

%	p	%	p
	25°		
41.81	12.38	49.45	8.44
43.79	11.49	51.45	7.67
45.04	10.80	53.24	6.71
45.59	10.49	55.23	5.79
47.46	9.46		

Ebert, 1930

%	p 0°	20°	25°	30°
0	4.58	17.54	23.76	31.82
10	4.40	16.95	22.75	30.75
20	4.05	15.30	20.90	27.85
30	3.40	13.10	17.85	23.65
40	2.55	9.70	13.45	18.30
50	1.50	6.75	8.50	12.00
60	0.65	2.80	4.00	5.65
70	0.10	0.75	0.95	1.75
75	-	-	0.40	-
80	-	-	0.15	-
85	-	-	0.05	-

Ure and Young, 1933

t	p	t	p
	29.90%		
24.41	17.0	69.85	179.0
24.87	17.8	74.83	221.1
29.90	23.7	79.67	270.7
30.00	24.1	85.32	341.9
34.40	31.0	89.92	408.1
34.45	30.7	94.78	491.0
39.69	41.1	99.71	590.7
44.90	54.5	104.44	699.2
49.71	69.6	110.06	845.1
54.91	89.9	113.85	964.4
59.72	112.9	119.33	1155
64.59	141.7	123.06	1296
	38.23%		
25.82	15.0	76.29	195.4
31.44	21.1	82.71	255.4
36.20	27.5	86.09	292.1
45.88	46.3	90.67	351.5
50.51	59.2	96.51	440.3
55.44	74.8	103.13	561.1
57.32	82.4	110.80	737.7
63.11	108.4	123.64	1133
69.69	146.5	129.25	1344
	43.36%		
25.20	12.0	79.98	193.0
29.95	15.6	84.39	231.6
36.53	23.2	90.16	293.9
39.99	28.0	94.86	353.1
44.67	36.2	99.73	423.0
49.72	47.0	104.76	511.9
54.17	59.2	109.92	614.8
59.12	75.6	115.56	743.3
64.75	97.7	119.16	844.9
69.76	123.7	124.25	996.4
74,79	154.3		

48.12%			
26.04	10.1	84.19	191.8
32.81	14.9	89.41	237.5
41.61	24.9	94.75	296.1
46.58	32.4	99.23	349.3
51.18	41.5	104.81	430.3
55.29	51.0	109.64	513.6
61.60	69.8	114.26	602.7
69.83	102.4	121.27	766.1
74.53	126.4	129.11	990.7
80.04	160.8		
52.68%			
24.49	7.01	79.65	127.0
29.69	9.60	85.05	159.8
34.48	13.0	90.29	199.9
39.93	17.4	94.96	139.8
44.50	22.4	100.43	298.5
50.15	30.7	105.37	361.2
54.29	37.9	109.20	412.8
59.40	49.4	115.53	523.0
64.57	63.6	119.75	601.2
70.17	83.4	125.98	750.6
74.42	102.2		
58.03%			
25.11	4.82	85.16	114.3
33.95	8.40	89.87	139.5
40.58	12.4	95.06	172.9
45.05	16.1	100.15	211.1
49.77	20.1	104.10	246.2
55.19	28.0	109.66	303.9
59.95	35.5	114.99	370.1
65.01	45.6	120.74	453.2
70.13	58.3	125.42	533.8
74.95	72.7	130.20	630.0
80.22	92.2	135.61	752.8
65.47%			
29.72	2.89	84.72	60.6
34.99	4.29	90.16	77.4
39.59	5.37	94.71	93.9
44.66	7.58	100.20	118.5
49.77	10.16	104.56	141.3
54.91	13.74	109.96	174.9
59.98	18.02	114.74	210.6
64.36	22.7	119.13	247.8
69.86	29.8	124.41	301.2
74.52	37.6	129.46	361.1
79.19	46.9		

Hornung and Giauque, 1955

t	p	t	p
20.004 mol %			
23.17	4.252	34.47	8.686
24.53	4.627	47.56	18.528
25.00	4.795		
25.006 mol %			
27.67	2.821	44.51	8.061
29.18	3.102	54.07	13.895
34.72	4.443		
33.322 mol %			
25.00	0.618	63.09	7.027
42.05	1.980	71.84	11.316
52.78	3.878		

Tarasenkov, 1955

t	p			
	10.02%	20.40%	29.84%	34.74%
0	4.08	3.42	2.91	3.05
10	8.17	7.23	6.06	-
20	15.82	15.32	12.73	10.99
25	21.8	20.8	17.4	-
30	28.6	27.1	21.9	-
35	38.8	37.3	31.3	-
40	50.3	47.4	39.9	36.3
45	66.6	62.0	53.5	-
50	85.6	79.7	68.9	-
55	110.9	102.4	89.4	-
60	139.0	130.0	111.5	101.0
65	175.4	163.9	143.2	-
70	217	204.1	179.0	-
75	273	256.2	227	-
80	334	313.8	277	-
85	408	385.0	337	-
90	502	469.9	415	-
95	608	566.5	502	-
100	718	662.2	591	-
	39.90%	48.44%	54.62%	56.06 %
0	1.79	1.44	1.13	0.975
10	4.07	2.98	2.20	-
20	7.60	7.00	4.21	4.20
25	10.90	9.53	6.22	5.55
30	15.17	12.32	8.33	7.43
35	21.5	16.79	11.20	9.61
40	29.8	21.5	15.26	13.40
45	39.8	29.2	20.1	17.66
50	52.5	37.4	26.8	23.7
55	68.4	49.1	34.7	31.0
60	88.3	62.7	44.8	40.1
65	112.2	80.1	57.7	51.6
70	141.1	101.0	72.8	65.2
75	178.2	129.7	91.6	82.2
80	220	159.6	114.4	103.7
85	272	197.5	142.5	127.9
90	332	243	175.9	160.3
95	411	296	214	196.6
100	525	346	258	231.8

	62.70%	68.34%	71.63%
0	0.525	0.225	0.125
20	2.18	1.05	0.577
40	7.71	3.80	2.19
60	23.5	11.98	7.06
80	60.0	31.5	21.0
100	146.4	79.9	54.1
	74.5%	77.83%	83.28%
0	0.065	0.032	0.007
20	0.326	0.176	0.052
40	1.28	0.730	0.202
60	4.50	2.55	0.783
80	13.49	7.89	2.84
100	35.5	22.0	8.45

Luchinskii, 1956

%	p 20°	40°	60°	80°	100°
0	17.54	54.4	146.6	352	760
10	16.25	50.0	134.5	323	704
20	14.9	45.9	123.6	297	650
25	14.0	43.2	116.4	280	610
30	13.0	40.0	107.9	260	567
40	10.4	32.2	87.5	211.8	465
50	7.22	24.5	62.4	152.7	338
55	5.40	17.25	48.0	118.7	265
60	3.69	12.05	34.2	86.1	195.5
65	2.25	7.55	22.0	56.9	132.2
70	1.19	4.22	12.8	34.1	81.6
75	0.53	1.93	6.33	17.7	44.2
80	0.18	0.72	2.49	7.48	19.9
85	0.04	0.19	0.73	2.43	7.06
90	0.004	0.022	0.10	0.39	1.28
94	0.00024	0.00016	0.009	0.04	0.15
96	0.00005	0.00004	0.0024	0.012	0.05
98.3	0.00003	0.00025	0.0015	0.008	0.083
100	0.00035	0.0025	0.014	0.07	0.27

%	p 120°	140°	160°	180°	200°
40	947	-	-	-	-
50	697	-	-	-	-
55	550.5	-	-	-	-
60	411	802	-	-	-
65	284	564	-	-	-
70	180.0	366	697	-	-
75	101.2	213.2	421	774	-
80	48.2	106.8	220	424	778
85	18.6	44.3	97.25	199.2	387
90	3.78	10.0	24.2	54.0	113.5
94	0.52	1.54	4.14	10.2	23.4
96	0.18	0.57	1.63	4.22	10.1
98.3	0.125	0.40	1.17	3.09	7.65
100	0.93	2.87	7.92	20.1	47.5

%	b.t.	%	b.t.
0	100.0	55	129.6
5	101.0	58	134.5
10	102.0	60	138.3
15	103.1	62	142.4
20	104.3	65	149.3
25	105.8	68	156.8
30	107.7	70	162.8
35	110.0	72	169.1
40	113.2	75	179.3
45	117.2	78	190.4
50	122.7	80	199.2
52	125.1	82	208.4

Glueckauf and Kitt, 1956

M	p	osmotic coefficient	M	p	osmotic coefficient
		25°			
0	23.756	1.000	34	0.273	2.431
1	22.848	0.721	36	0.214	2.421
2	21.680	0.846	38	0.1694	2.408
3	20.230	0.991	40	0.1369	2.386
4	18.527	1.150	42	0.1112	2.364
5	16.705	1.303	44	0.0908	2.342
6	14.868	1.445	46	0.0750	2.317
7	13.086	1.576	48	0.0625	2.291
8	11.435	1.691	50	0.0523	2.265
9	9.931	1.793	52	0.0442	2.238
10	8.581	1.884	54	0.0378	2.209
12	6.368	2.030	56	0.0322	2.182
14	4.705	2.140	58	0.0278	2.154
16	3.460	2.228	60	0.0240	2.127
18	2.555	2.292	62	0.0209	2.099
20	1.891	2.341	64	0.0184	2.071
22	1.400	2.382	66	0.0162	2.043
24	1.316	2.407	68	0.0144	2.016
26	0.786	2.426	70	0.0128	1.990
28	0.593	2.438	72	0.0114	1.964
30	0.454	2.441	74	0.0101	1:938
32	0.350	2.439	76	0.0092	1.913

Boswell and Cantelo, 1922

Dp/po	N	Dp/po	N
	23°		
0.990	30.000	0.188	6.200
0.925	23.800	0.096	4.200
0.788	16.700	0.068	3.000
0.569	13.700	0.045	2.100
0.382	10.900	0.019	0.950
0.284	8.100	0.007	0.470

Grollmann and Frazer, 1925

M*	Dp	M*	Dp
0.073	0.600	1.282	11.930
0.241	2.010	1.671	16.640
0.315	2.640	1.772	17.860
0.549	4.690	2.009	20.860
0.636	5.470	2.468	26.980
0.892	7.910	2.871	33.370
1.097	9.950		

*Moles in 1 l. water .

Berkeley, Hartley and Burton, 1919

%	Po/p	%	Po/p
19.92	1.21147	5.84	1.02565
18.34	1.17019	5.80	1.02517

Rayleigh, 1902

%(at b.t.) L	V	%(at b.t.) L	V
60	0	90	7.1
75	0.1	93	12.8
81	1.6		

Az = 98.3 %

Sheffer, Janis and Ferguson, 1939

m_1	m_2	activity coefficient H_2O
	25°	
4.349	6.145	-
4.348	6.142	0.7531
3.815	5.255	.7936
3.154	4.229	.8404
2.830	3.728	.8628
2.184	2.770	.9023
1.544	1.859	.9367
1.269	1.486	.9500
1.046	1.201	.9598
0.8826	0.9959	.9669
0.7338	0.8174	.9729
0.6403	0.7066	.9766
0.5200	0.5675	.9813
0.3843	0.4158	.9863
0.2865	0.3089	.9898
0.1882	0.2031	.9934
0.0958	0.1041	.9966
0.04545	0.0508	.99830
0.01880	0.02423	.99918

m_1 = molality of H_2SO_4

m_2 = molality of NaCl

Pfaundler and Schnegg, 1875

%	f.t.	%	f.t.	%	f.t.
2.88	- 1.11	34.10	-49.8	89.00	- 1.49
5.22	- 2.20	34.40	-54.4	90.10	- 8.30
5.77	- 2.43	35.25	-61.7	90.60	-11.67
6.45	- 2.80	74.30	-28.80	91.60	-19.01
7.31	- 3.30	75.00	-24.70	92.10	-23.65
8.45	- 3:90	75.97	-19.4	92.80	-31.20
10.00	- 5.00	77.25	-12.30	94.10	-30.01
12.25	- 6.70	78.40	- 7.04	94.60	-24.90
15.81	- 9.81	79.00	- 4.30	95.00	-21.02
18.50	-12.68	80.01	+ 0.11	95.95	-12.90
22.27	-17.60	80.64	+ 2.33	96.45	- 9.30
25.00	-21.59	82.62	+ 7.55	96.84	- 5.99
27.35	-26.40	83.00	+ 8.00	97.75	- 1.3
30.00	-33.00	84.48	+ 8.81*	98.20	+ 1.30
31.21	-37.10	85.61	+ 8.10	98.85	+ 4.21
32.30	-41.6	87.00	+ 5.50	99.40	+ 6.00
32.80	-43.8	87.83	+ 2.90	100	+ 6.79

* (1+1)

Pickering, 1890

%	f.t.	%	f.t.
101.0243	+ 6.653	83.3212	+ 7.829
100.8171	+ 7.419	82.8726	+ 7.309
100.6403	+ 8.089	82.0452	+ 5.934
100.6038	+ 8.379	81.8494	+ 5.441
100.4243	+ 9.179	80.6767	+ 2.217
100.2121	+ 9.849	79.8932	- 0.25
100.0953	+10.155	79.0466	- 4.486
100.0000	+10.352	78.9508	- 4.773
99.8826	+ 9.617	77.9908	- 8.699
99.7845	+ 9.121	76.9899	-15.199
99.6007	+ 8.053	75.8940	-22.0
99.4569	+ 7.091	69.136	-54.0
99.4132	+ 6.786	65.065	-39.0
99.2896	+ 6.130	60.085	-28.5
99.2048	+ 5.648	56.892	-25.0
99.0440	+ 4.649	55.128	-28.5
98.7913	+ 3.032	49.725	-36.7
98.7663	+ 2.791	44.504	-49.0
98.7335	+ 2.673	39.951	-68.0
98.6457	+ 2.079	38.490	-72.0
98.5625	+ 1.900	37.662	-71.0
98.5346	+ 1.591	37.422	-72.0
98.1974	- 0.413	35.993	-63.5
98.0316	- 1.676	34.978	-61.0
97.8168	- 2.883	34.874	-56.5
97.6210	- 4.345	32.577	-47.0
97.4318	- 5.349	29.930	-35.5
97.0924	- 7.744	27.583	-28.3
97.0257	- 8.087	25.787	-23.6
96.6970	-10.407	23.9655	-19.676
96.1251	-14.501	22.9497	-18.075
96.1171	-13.686	21.8689	-16.302
95.5205	-18.275	21.0042	-14.996
95.160	-23.5	19.9007	-13.520
94.922	-24.75	19.2284	-12.700
94.597	-28.09	18.0067	-11.265
94.278	-31.0	17.0076	-10.269
94.034	-33.0	15.9399	- 9.111
93.556	-38.0	14.7681	- 8.121
93.0343	-32.0	13.4851	- 7.056
92.027	-20.0	12.7720	- 6.478
91.100	-12.736	11.9624	- 5.855
90.566	-10.202	11.0190	- 5.266
89.822	- 5.776	9.9713	- 4.602
88.9713	- 0.576	8.9868	- 4.078
88.0355	+ 2.768	7.9731	- 3.492
86.7908	+ 5.585	7.9072	- 3.367
86.2186	+ 6.667	6.9943	- 2.994
85.6789	+ 8.029	5.9316	- 2.441
85.4458	+ 8.115	5.0023	- 2.050
84.9717	+ 8.468	4.1970	- 1.963
84.6055	+ 8.513	3.99342	- 1.582
84.0050	+ 8.404	3.0058	- 1.142

(1+1) (2+1) (5+1)

Thilo, 1892 and Pictet, 1894

%	f.t.	%	f.t.
100	+10.5	28	-40
95.2	-24.5	26.63	-34
89.17	-47	25.39	-26.5
88.88	-55	23.12	-19
84.48	+ 3.5	21.40	-17
83.82	+ 4.5	17.88	- 8.5
83.74	+ 5	15.36	- 6.5
83.00	+ 8	11.98	- 4.5
80.84	+ 2.5	9.82	- 3.5
80.09	+ 1.5	6.77	0
77.2	-14	5.16	+ 2.5
74.85	-41	3.5	+ 3
73.08	-70	2.65	+ 4
57.65	-40	1.78	+ 4.5
47.57	-50	1.67	+ 3.5
40.50	-65	1.58	+ 2.5
35.25	-88	1.50	+ 1.5
33.11	-75	1.34	+ 1
31.21	-55	0.54	- 0.5
29.52	-45	0	0
	(1+1)	(4+1)	

Jones and Getman, 1902

M	f.t.	M	f.t.
0.1	-0.397	1.0	- 4 190
0.2	-0.817	1.5	- 7 443
0.3	-1.173	2.0	-11 296
0.4	-1.593	2.5	-16 275
0.5	-2.032		

Jones, 1904 and Jones and Basset, 1905

M	f.t.	M	f.t.
0.1	-0.397	2.0	-11 296
0.2	-0.670	2.5	-15 275
0.3	-1.156	2.73	-21 000
0.4	-1.570	3.28	-29 000
0.6	-2.440	3.825	-41 000
0.8	-3.300	4.37	-53 000
1.0	-4.189	4.5	-58 000
1.5	-7.443	5.0	-76 000

Jones and Pearce, 1907

M	f.t.	M	f.t.
0.010	-0.04872	0.50	-2.0033
0.025	-0.1179	0.75	-3.1174
0.050	-0.2182	1.00	-4.379
0.075	-0.3157	1.50	-7.263
0.10	-0.4043	2.00	-11.296

Biron, 1908

%	f.t.	%	f.t.
57.64	-29.0	74.8	-40.8
68.9	-44.6	74.8	-39.0
71.2	-39.5	76.3	-39.3
72.6	-39.0	76.6	-39.4
73.15	-38.9	77.0	-39.2
73.8	-39.9		

Hülsmann, 1934

%	f.t.	E
0	0	-
10.48	- 4.8	-72.3
21.78	-18.3	-
25.13	-22.4	-72.4
29.03	-32.7	-
30.04	-34.6	-72.4
31.65	-40.1	-72.5
34.16	-50.7	-72.4
34.91	-56.8	-72.4
35.23	-56.4	-
35.69	-62.4	-72.4
35.96	-64.8	-72.4
36.14	-65.3	-72.3
36.61	-65.0	-72.3
37.18	-67.5	-72.5
37.77	-63.7	-72.3
39.20	-57.3	-62.2
40.00	-56.0	-62.0
41.84	-54.2	-62.0
44.01	-50.0	-61.9
46.74	-42.6	-62.0
49.41	-37.5	-54.0
50.22	-35.7	-54.1
50.84	-34.8	-53.9
54.38	-31.0	-53.8
55.85	-29.1	-53.5
57.60	-28.7	-
59.42	-29.4	-47.1
62.88	-33.0	-47.1
63.11	-32.6	-
64.94	-36.7	-47.2
64.99	-37.0	-47.2
66.54	-42.2	-47.2
67.42	-46.0	-47.4
69.31	-45.2	-47.3
70.34	-41.5	-47.1
70.58	-41.3	-47.2
71.33	-40.3	-47.4
71.98	-39.8	-47.2
74.08	-33.4	-39.7
76.31	-21.0	-39.7
78.89	- 7.5	-
78.97	- 6.5	-39.6
84.49	+ 8.5	-
89.75	- 3.5	-35.2
92.88	-26.9	-35.6
94.97	-24	-35.5
96.54	-15.1	-35.4
100.00	+10.49	-

(1+1) (2+1) (4+1) (6+1) (8+1)

Robles and Moles, 1934

M (1+1)*	f.t.
f.t. H_2SO_4 = 10.50	
0.466	8.020
0.562	7.472
0.616	7.546
0.683	6.885
0.700	6.795
0.720	6.705
2.970	-5.170

*M (1+1) in the system : $H_2SO_4 + H_2SO_4 \cdot H_2O$

%	f.t.	%	f.t.
a) $H_2O + H_2SO_4$			
0.8534	9.802	4.5374	6.705
0.9912	9.852	5.1942	5.88
1.2631	9.430	6.2198	5.81
2.0184	8.823	7.1604	4.20
2.1628	8.757	8.3465	2.98
2.3569	8.380	11.771	0.75
3.3761	7.638	12.285	0.03
3.6620	7.451	14.337	-1.27
4.2416	6.730	16.397	-2.97
4.3039	6.885	18.846	-4.57
b) $H_2O + H_2SO_4$ fuming			
0.915	9.672	2.20	8.802
0.980	9.585	2.48	8.381
1.095	9.480	2.82	7.872
1.11	9.840	2.96	7.770
1.83	8.804	3.52	7.472
1.97	8.757	4.44	6.795
c) $H_2SO_4 \cdot H_2O + H_2SO_4$			
0.292	10.36	7.653	3.68
0.831	9.81	8.974	2.56
1.733	8.96	10.442	1.51
2.526	8.21	11.973	-0.03
3.275	7.51	13.746	-1.29
4.113	6.71	15.481	-2.72
4.839	6.06	17.348	-4.09
6.296	4.91		

N.B. The authors give also some other data for diluted solutions .

Kunzler and Giauque, 1952

%	f.t.	%	f.t.
100.096	10.083	99.9759	10.3262
100.086	10.123	99.9699	10.2990
100.076	10.157	99.9615	10.2666
100.057	10.227	99.948	10.1974
100.0386	10.2926	99.931	10.1031
100.0270	10.3270	99.914	10.0041
100.0193	10.3461	99.898	9.899
100.0157	10.3539	99.897	9.905
100.0121	10.3605	99.883	9.806
100.0084	10.3657	99.850	9.603
100.0047	10.3692	99.819	9.407
100.0011	10.3709	99.816	9.385
99.9974	10.3705	99.789	9.216
99.9936	10.3679	99.557	7.80
99.9902	10.3626	99.276	6.17
99.9866	10.3561	99.017	4.59
99.9860	9.894 (?)	98.707	2.70
99.9830	10.3476		
97.847	- 2.79	95.311	-20.88
97.490	- 5.13	95.062	-22.92
97.090	- 7.82	94.513	-27.33
96.622	-11.10	94.260	-29.56
96.222	-13.95	94.010	-31.83
96.065	-14.83	93.835	-33.38
95.801	-16.89	93.806	-33.67
95.591	-18.71		
93.382	-31.47	84.620	+ 8.4803
93.256	-30.07	84.570	+ 8.4855
92.412	-22.58	84.518	+ 8.4886
92.301	-21.64	84.469	+ 8.4888
92.214	-20.91	84.419	+ 8.4870
91.913	-18.52	84.371	+ 8.4831
91.583	-16.00	84.323	+ 8.4773
91.299	-13.98	84.276	+ 8.4686
90.832	-10.86	84.006	+ 8.3882
90.406	- 8.28	83.435	+ 7.992
90.288	- 7.58	82.824	+ 7.252
89.926	- 5.58	82.412	+ 6.567
89.482	- 3.30	81.888	+ 5.478
88.890	- 0.61	81.850	+ 5.412
88.420	+ 2.25	81.783	+ 5.249
87.748	+ 3.48	80.947	+ 2.93
87.338	+ 4.69	80.154	+ 0.18
86.896	+ 5.78	79.446	- 2.70
86.542	+ 6.506	78.921	- 5.14
86.514	+ 6.570	78.329	- 8.03
86.113	+ 7.254	77.745	-11.28
85.794	+ 7.692	76.643	-18.02
85.488	+ 8.028	76.193	-21.06
85.189	+ 8.256	75.990	-22.50
84.909	+ 8.4016	75.786	-23.98
84.895	+ 8.4069	75.339	-27.38
84.880	+ 8.4128	74.788	-31.62
84.828	+ 8.4328	74.550	-33.76
84.775	+ 8.4482	74.410	-34.80
84.723	+ 8.4613	74.309	-35.68
84.672	+ 8.4722		

Wasif, 1955 (fig.)

m (water)	f.t.
0	10.38
0.02	10.28
0.04	10.08

Giauque, Kunzler and Hornung, 1956

mol %	f.t.	mol %	f.t.	
73.14	-34.86	48.1	+ 8.005	
71.5	-29.23	47.6	+ 7.740	
69.0	-22.17	46.5	+ 6.840	
66.7	-16.05	45.4	+ 5.61	
64.5	-10.81	44.4	+ 4.06	
62.5	- 6.37	43.5	+ 2.22	
60.6	- 2.60	42.5	+ 0.10	
58.8	+ 0.53	41.7	- 2.27	
57.1	+ 3.06	40.8	- 4.88	
55.6	+ 5.07	40.0	- 7.70	
54.0	+ 6.60	39.2	-10.73	
52.6	+ 7.666	38.5	-13.97	
52.1	+ 7.967	37.7	-17.41	
51.5	+ 8.201	37.0	-21.03	
51.3	+ 8.289	36.4	-24.82	
51.0	+ 8.360	35.7	-28.77	
50.8	+ 8.418	35.1	-32.92	
50.5	+ 8.4576	34.5	-37.20	
50.2	+ 8.4819	-	-	E (1+1) + (2+1)
50.0	+ 8.49	34.12	-39.86	
49.8	+ 8.4821	33.9	-41.64	
49.5	+ 8.4590	33.3	-46.21	
49.3	+ 8.4208	-	-	E (1+1) - (3+1)
49.0	+ 8.366	32.57	-52.85	
48.8	+ 8.212			

Properties of phases . Density .

The data of the following authors, on density, are only of historical value or not accurate enough . The Standard work on density is that of Domke and Bein, 1905 .

Delezenne, 1826
Anthon, 1836
Bineau, 1848
Wiedemann, 1856
Graham, 1861 and 1862
Kolb, 1865 and 1872
Thomsen, 1871 and 1882
Hager, 1876
Kohlrausch, 1876 and 1878
Grotrian, 1877 and 1879
Schertel, 1882
Volkmann, 1882
Lunge and Naef, 1883
Röntgen and Schneider, 1886
Cattaneo, 1889
Lunge and Isler, 1890
Le Blanc and Rohland, 1896
Barnes and Scott, 1898
Forchheimer, 1900
Bein, 1904
Chèneveau, 1904 and 1907
Zecchini, 1905
Guerdjikova, 1910
Herz, 1918
Pascal, 1919
Rabinovitch, 1921
Bingham and Stone, 1923
Manchot, Jahrstorfer and Zepter, 1924
Shiba, 1926
Hantzsch and Dürigen, 1928
Okazaki, 1935
Srinivasan and Prasad, 1939
Guillaume, 1946
Campbell, Kartzmark and al., 1953

Kremers, 1861

t	d				
0	1.8121	1.8260	1.8282	1.8456	1.8524
19.5	.7903	.8045	.8155	.8249	.8321
40	.7682	.7825	.7940	.8037	.8114
60	.7473	.7626	.7735	.7837	.7917
80	.7268	.7415	.7534	.7639	.7724
100	.7074	.7219	.7340	.7447	.7537

Marignac, 1871

t	d	t	d	t	d
		100 %			
0	1.85289	19.13	1.83301	21.93	1.83015
9.67	.84271	23.00	.82910	25.48	.82661
13.47	.83877	14.41	.83782	30.30	.82182
18.01	.83413	18.64	.83347		
		52.13 %			
0	1.42987	19.13	1.41446	21.93	1.41225
9.67	.42201	14.41	.41822=	25.48	.40943
13.47	.41896	18.64	.41485	30.30	.40570
18.01	.41534				
		35.25 %			
0	1.27575	19.13	1.26163	21.93	1.25961
9.67	.26855	14.41	.26511	25.48	.25701
13.47	.26575	18.64	.26200	30.30	.25354
18.01	.26244				
		26.63 %			
0	1.20381	17.91	1.19172	25.55	1.18663
8.1	.19833	22.61	.18859	30.62	.18323
10.55	.19667	14.26	.19425	35.37	.18008
15.70	.19322	20.02	.19035		
		17.88 %			
0	1.13370	15.82	1.12522	26.83	1.11910
9.04	.12892	22.02	.12179	30.01	.11731
15.50	.12539				
		9.82 %			
0	1.07163	15.82	1.06617	26.83	1.06158
9.04	.06870	22.02	.06366	30.01	.06015
15.50	.06629				
		5.16 %			
0	1.03721	15.82	1.03377	26.83	1.03014
9.04	.03554	22.02	.03183	30.01	.02931
15.50	.03386				
		2.65 %			
0	1.01919	15.82	1.01692	26.83	1.01385
9.04	.01825	22.02	.01531	30.01	.01278
15.50	.01700				
		1.34 %			
0	1.00979	13.68	1.00859	23.34	1.00644
8.61	.00932	19.07	.00750	27.21	.00534

Perkin, 1886

%	d		
	15°	20°	25°
100	1.83744	1.83237	1.82727
84.17	.77646	.77108	.76551
72.92	.64940	.64462	.63983
64.23	.54929	.54485	.54031

Le Blanc, 1889

%	d	%	d
	20°		
94.11	1.83612	21.68	1.14097
79.68	1.73521	10.10	1.06657
60.98	1.51544	4.78	1.02989
35.77	1.26964	0	0.99823

Pickering, 1890

%	d			
	40°	38°	36°	34°
100.0	1.81217	1.814049	1.81603	1.81801
99.5	.81393	.815902	.81787	.81934
99.0	.81541	.817371	.81933	.82131
98.5	.81644	.818350	.82028	.82222
98.0	.81699	.818869	.82077	.82269
97.5	.81713	.819030	.82095	.82288
97.0	.81695	.818853	.82076	.82268
96	.81580	.817696	.81960	.82153
95	.81370	.815643	.81758	.81951
94	.81084	.812800	.81476	.81672
92	.80299	.804960	.80693	.80891
90	.79245	.794457	.79646	.79847
88	.77937	.781439	.78352	.78562
86	.76393	.766004	.76810	.77018
84.5	.75083	.752820	.75485	.75692
84	.74624	.748262	.75029	.75238
82	.72657	.728561	.73056	.73258
80	.70537	.707280	.70923	.71120
78	.68314	.685008	.68691	.68883
76	.66042	.662247	.66409	.66694
74	.63732	.639125	.64095	.64277
72	.61423	.615978	.61774	.61952
70	.59121	.592935	.59470	.59645
68	.56835	.570064	.57177	.57350
66	.54579	.547453	.54911	.55079
64	.52354	.525172	.52681	.52846
62	.50159	.503184	.50478	.50638
60	.47998	.481526	.48307	.48465
58	.45876	.460298	.46186	.46343
56	.43804	.439565	.44110	.44264
54	.41776	.419267	.42079	.42233
52	.39792	.399423	.40094	.40245
50	.37845	.379061	.38148	.38299
48	.35949	.360966	.36245	.36396
46	.34089	.342345	.34381	.34529
44	.32267	.324127	.32560	.32708
42	.30482	.306263	.30770	.30916
40	.28732	.288737	.29019	.29165
38	.27011	.271522	.27296	.27440
36	.25321	.254628	.25604	.25746
34	.23655	.237953	.23937	.24078
32	.22017	.221554	.22295	.22436
30	.20403	.205395	.20677	.20815
28	.18816	.189488	.19085	.19221
26	.17252	.173844	.17516	.17648
24	.15716	.158430	.15972	.16100
22	.14197	.143231	.14449	.14573
20	.12705	.128243	.12945	.13065
18	.11254	.11368	.11482	.11597
16	.09815	.09923	.09933	.10141
14	.08405	.08511	.08617	.08723
12	.07025	.07125	.07225	.07325
10	.05662	.05760	.05856	.05952
8	.04339	.04429	.04518	.04608
6	.03048	.03133	.03218	.03301
5	.02409	.02492	.02576	.02659
4	.01776	.01856	.01938	.02018
3.5	.01455	.01534	.01612	.01689
3	.01135	.01213	.01190	.01365
2.5	.00824	.00901	.00977	.01052
2.0	.00508	.00586	.00661	.00735
1.5	.00211	.00283	.00353	.00422
1.0	0.99878	0.99950	.00024	.00095
0.5	.99567	.99640	0.99712	0.99783
0	.99240	.993145	.99453	.99453

	32°	30°	28°	26°
100.0	1.81998	1.82195	1.823932	1.82590
99.5	.82183	.82384	.825842	.82784
99.0	.82327	.82525	.827252	.82923
98,5	.82417	.82612	.828064	.83004
98.0	.82462	.82657	.828527	.83050
97.5	.82483	.82680	.828785	.83075
97.0	.82462	.82658	.828557	.83052
96	.82349	.82546	.827448	.82943
95	.82146	.82345	.825463	.82743
94	.81870	.82070	.822711	.82472
92	.81092	.81298	.814062	.81714
90	.80054	.80265	.804798	.80692
88	.78772	.78983	.791964	.79413
86	.77229	.77442	.776592	.77878
84.5	.75901	.76114	.763300	.76547
84	.75448	.75658	.758696	.76083
82	.73468	.73668	.738743	.74079
80	.71319	.71519	.717212	.71923
78	.69077	.69273	.694655	.69658
76	.66781	.66971	.671605	.67348
74	.64460	.64645	.648312	.65012
72	.62131	.62312	.624962	.62680
70	.59819	.59995	.601742	.60355
68	.57524	.57698	.578730	.58050
66	.55249	.55422	.555976	.55772
64	.53013	.53181	.533513	.53522
62	.50801	.50966	.511337	.51300
60	.48625	.48789	.489582	.49126
58	.46502	.46665	.468269	.46993
56	.44428	.44584	.447416	.44909
54	.42388	.42544	.427041	.42865
52	.40398	.40553	.407109	.40869
50	.38451	.38603	.387583	.38914
48	.36548	.36700	.368501	.37003
46	.34678	.34829	.349806	.35133
44	.32857	.33005	.331537	.33304
42	.31063	.31214	.313626	.31513
40	.29309	.29456	.296035	.29752
38	.27685	.27731	.278765	.28023
36	.25889	.26033	.261787	.26324
34	.24220	.24362	.245046	.24650
32	.22576	.22716	.228547	.22995
30	.20953	.21091	.212302	.21370
28	.19355	.19489	.196233	.19758
26	.17780	.17912	.180429	.18175
24	.16228	.16356	.164844	.16612
22	.14699	.14824	.149455	.15068
20	.13185	.13305	.13425	.13545
18	.11711	.11825	.11939	.12053
16	.10250	.10360	.10470	.10579
14	.08827	.08930	.09031	.09133
12	.07425	.07524	.07621	.07717
10	.06047	.06139	.06230	.06319
8	.04696	.04783	.04867	.04951
6	.03382	.03462	.03541	.03617
5	.02738	.02814	.02888	.02959
4	.02093	.02165	.02235	.02304
3.5	.01765	.01838	.01909	.01978
3	.01438	.01510	.01580	.01648
2.5	.01122	.01192	.01261	.01326
2.0	.00804	.00872	.00939	.01002
1.5	.00490	.00553	.00616	.00676
1.0	.00164	.00228	.00292	.00352
0.5	0.99849	0.99911	0.99971	.00028
0	.99518	.99579	.996367	0.99691

	24°	22°	20°	18°
100.0	1.82785	1.82982	1.83180	1.833782
99.5	.82982	.83181	.83381	.835808
99.0	.83121	.83319	.83518	.837176
98.5	.83203	.83403	.83604	.838055
98.0	.83250	.83450	.83650	.838512
97.5	.83270	.83465	.83664	.838649
97.0	.83249	.83448	.83650	.838507
96	.83141	.83342	.83543	.837474
95	.82939	.83142	.83347	.835543
94	.82672	.82873	.83077	.832813
92	.81920	.82125	.82330	.825398
90	.80904	.81116	.81330	.815459
88	.79630	.79844	.80062	.802827
86	.78097	.78317	.78537	.787581
84.5	.76763	.76980	.77199	.77419
84	.76297	.76514	.76732	.769519
82	.74288	.74501	.74715	.749293
80	.72125	.72329	.72535	.727406
78	.69853	.70050	.70250	.704489
76	.67538	.67730	.67924	.681187
74	.65197	.65387	.65579	.657697
72	.62862	.63045	.63230	.634183
70	.60536	.60716	.60897	.610801
68	.58225	.58400	.58579	.587623
66	.55946	.56121	.56297	.564750
64	.53694	.53866	.54040	.542154
62	.51476	.51645	.51819	.519939
60	.49296	.49466	.49636	.498077
58	.47163	.47331	.47500	.476641
56	.45074	.45241	.45407	.455707
54	.43029	.43194	.43357	.435158
52	.41027	.41186	.41346	.415059
50	.39072	.39229	.39386	.395433
48	.37157	.37313	.37469	.376239
46	.35286	.35440	.35593	.357483
44	.33454	.33604	.33756	.339104
42	.31663	.31812	.31964	.321159
40	.29901	.30048	.30197	.303492
38	.28170	.28318	.28467	.286163
36	.26468	.26612	.26760	.269094
34	.24794	.24938	.25082	.252276
32	.23137	.23279	.23422	.235661
30	.21508	.21646	.21784	.219252
28	.19894	.20032	.20170	.203067
26	.18306	.18438	.18570	.187034
24	.16738	.16866	.16993	.171210
22	.15191	.15314	.15436	.155596
20	.13663	.13780	.13898	.140179
18	.12167	.12279	.12391	.125023
16	.10686	.10791	.10899	.110062
14	.09234	.09334	.09434	.095341
12	.07811	.07905	.07997	.080884
10	.06407	.06493	.06579	.066640
8	.05032	.05112	.05192	.052669
6	.03690	.03760	.03830	.038985
5	.03027	.03093	.03159	.032251
4	.02369	.02431	.02493	.025530
3.5	.02043	.02104	.02162	.022181
3	.01712	.01772	.01830	.018851
2.5	.01387	.01446	.01502	.015531
2.0	.01063	.01119	.01174	.012222
1.5	.00735	.00791	.00844	.008903
1.0	.00411	.00465	.00515	.005569
0.5	.00083	.00132	.00179	.002217
0	0.99742	0.99979	0.99831	0.998695

	16°	15°	14°	12°
100.0	1.83585	1.83689	1.83793	1.84003
99.5	.83784	.83886	.83988	.84195
99.0	.83921	.84022	.84123	.84328
98.5	.84007	.84109	.84211	.84418
98.0	.84053	.84154	.84256	.84462
97.5	.84068	.84170	.84272	.84476
97.0	.84053	.84154	.84256	.84460
96	.83950	.84052	.84153	.84357
95	.83760	.83862	.83963	.84165
94	.83486	.83588	.83690	.83989
92	.82751	.82857	.82964	.83176
90	.81760	.81867	.81973	.82186
88	.80505	.80614	.80724	.80946
86	.78982	.79093	.79194	.79414
84.5	.77639	.77749	.77859	.78079
84	.77171	.77280	.77389	.77608
82	.75143	.75250	.75357	.75573
80	.72949	.73052	.73155	.73362
78	.70645	.70744	.70844	.71044
76	.68318	.68416	.68513	.68707
74	.65962	.66058	.66154	.66348
72	.63606	.63699	.63791	.63978
70	.61265	.61357	.61450	.61635
68	.58947	.59038	.59128	.59309
66	.56654	.56744	.56833	.57011
64	.54391	.54478	.54566	.54741
62	.52167	.52252	.52337	.52507
60	.49978	.50061	.50143	.50307
58	.47828	.47910	.47991	.48153
56	.45732	.45813	.45894	.46056
54	.43676	.43756	.43836	.43996
52	.41667	.41747	.41828	.41988
50	.39699	.39778	.39856	.40012
48	.37780	.37857	.37935	.38089
46	.35900	.35976	.36052	.36206
44	.34062	.34138	.34214	.34366
42	.32266	.32342	.32418	.32569
40	.30499	.30575	.31649	.30799
38	.28763	.28837	.28911	.29061
36	.27057	.27131	.27205	.27353
34	.25374	.25446	.25518	.25662
32	.23708	.23780	.23852	.23998
30	.22067	.22137	.22207	.22348
28	.20445	.20514	.20583	.20721
26	.18837	.18904	.18971	.19105
24	.17250	.17315	.17380	.17510
22	.15682	.15743	.15805	.15929
20	.14135	.14194	.14253	.14370
18	.12612	.12667	.12722	.12832
16	.11110	.11161	.11212	.11314
14	.09633	.09681	.09729	.09824
12	.08178	.08222	.08266	.08352
10	.06746	.06786	.06826	.06904
8	.05341	.05377	.05413	.05482
6	.03961	.03991	.04021	.04080
5	.03285	.03313	.03340	.03391
4	.02607	.02632	.02656	.02702
3.5	.02269	.02293	.02316	.02360
3	.01935	.01958	.01979	.02020
2.5	.01598	.01620	.01641	.01680
2.0	.01266	.01286	.01305	.01341
1.5	.05432 ?	.00951	.00969	.01003
1.0	.00594	.00612	.00629	.00659
0.5	.00258	.00273	.00287	.00313
0	0.99903	0.99918	0.99932	0.99956

	10°	8°	6°
100.0	1.84212	1.844215	1.84634
99.5	.84404	.846128	.84825
99.0	.84536	.847455	.84959
98.5	.84625	.848311	.85039
98.0	.84671	.848796	.85088
97.5	.84681	.848896	.85101
97.0	.84665	.848744	.85092
96	.84564	.847719	.84984
95	.84370	.845829	.84800
94	.84109	.843200	.84534
92	.83388	.836021	.83818
90	.82402	.826211	.82841
88	.81172	.813870	.81615
86	.79637	.798622	.80088
84.5	.78300	.785200	.78740
84	.77829	.78055	.78283
82	.75788	.76033	.76219
80	.73570	.737766	.73986
78	.71247	.714511	.71655
76	.68904	.691014	.69293
74	.66541	.667297	.66915
72	.64167	.643567	.64551
70	.61822	.620060	.62195
68	.59492	.596738	.59860
66	.57189	.573690	.57551
64	.54915	.550917	.55272
62	.52678	.528481	.53024
60	.50473	.506415	.50812
58	.48316	.484802	.48646
56	.46218	.463784	.46536
54	.44154	.443111	.44467
52	.42145	.423003	.42454
50	.40169	.403249	.40480
48	.38244	.383983	.38553
46	.36360	.365138	.36669
44	.34520	.34673	.34828
42	.32719	.32868	.33021
40	.30949	.310987	.31251
38	.29211	.293597	.29508
36	.27501	.276478	.27794
34	.25808	.259540	.26100
32	.24142	.242856	.24431
30	.22490	.226324	.22774
28	.20858	.209960	.21136
26	.19239	.193728	.19508
24	.17638	.177655	.17898
22	.16053	.161765	.16301
20	.14488	.146050	.14721
18	.12943	.130527	.13161
16	.11418	.115204	.11620
14	.09918	.100097	.10100
12	.08436	.085181	.08698
10	.06979	.070518	.07121
8	.05547	.056082	.05665
6	.04135	.041870	.04236
5	.03439	.034858	.03531
4	.02746	.027869	.02828
3.5	.02402	.024411	.02478
3	.02060	.020947	.02126
2.5	.01717	.017494	.01780
2.0	.01375	.014050	.01432
1.5	.01032	.010578	.01082
1.0	.00686	.007107	.00729
0.5	.00337	.003593	.00383
0	0.99975	0.999890	0.99997

	4°	2°	0°
100.0	1.84849	1.85066	1.85284
99.5	.85038	.85249	.85461
99.0	.85172	.85382	.85589
98.5	.85249	.85460	.85671
98.0	.85300	.85508	.85714
97.5	.85310	.85516	.85722
97.0	.85301	.85509	.85719
96	.85195	.85406	.85618
95	.85016	.85230	.85444
94	.84034	.84968	.85188
92	.83061	.84250	.84466
90	.81841	.83281	.83501
88	.80315	.82067	.82294
86	.78960	.80542	.80769
84.5	.78510	.79180	.79402
84	.76437	.78737	.78964
82	.74198	.76657	.76877
80	.71858	.74410	.74622
78	.69485	.72062	.72266
76	.67101	.69677	.69871
74	.64744	.67285	.67471
72	.62385	.64938	.65132
70	.60046	.62574	.62764
68	.57735	.60234	.60422
66	.55452	.57921	.58105
64	.53200	.55633	.55815
62	.50984	.53376	.53553
60	.48813	.51156	.51330
58	.46696	.48981	.49150
56	.44621	.46856	.47013
54	.42607	.44775	.44929
52	.40634	.42760	.42914
50	.38708	.40788	.40942
48	.36824	.38862	.39017
46	.34982	.36980	.37136
44	.33175	.35137	.35293
42	.31403	.33329	.33485
40	.31403	.31555	.31709
38	.29657	.29807	.29957
36	.27941	.28087	.28233
34	.26247	.26395	.26542
32	.24576	.24721	.24867
30	.22917	.23061	.23205
28	.21274	.21414	.21554
26	.19644	.19782	.19921
24	.18029	.18161	.18291
22	.16425	.16549	.16673
20	.14838	.14955	.15074
18	.13269	.13377	.13487
16	.11720	.11821	.11921
14	.10188	.10276	.10364
12	.08675	.08749	.08821
10	.07186	.07247	.07304
8	.05720	.05771	.05819
6	.04281	.04320	.04357
5	.03570	.03602	.03631
4	.02860	.02886	.02909
3.5	.02510	.02537	.02561
3	.02153	.02176	.02197
2.5	.01805	.01824	.01841
2.0	.01454	.01473	.01479
1.5	.01102	.01115	.01116
1.0	.00743	.00760	.00756
0.5	.00403	.00405	.00400
0	.00000	0.99997	0.99988

Perkin, 1893

%	d	%	d
	15°		
100	1.83674	57.938	1.47837
99.92	.83712	47.407	.37293
99.84	.83744	35.163	.26419
96.598	.84103	28.005	.20515
93.663	.83457	18.921	.13365
84.349	.77598	14.019	.09689
72.998	.64880	11.154	.07612
64.413	.54939	9.179	.06213

Biron, 1899

mol %	d	
	0°	20°
100	1.8528	1.8320
87.49	.8556	.8346
77.04	.8533	.8321
67.30	.8444	.8231
60.68	.8321	.8104
51.95	.8035	.7813
50.00	.7943	.7721
46.34	.7741	.7523
39.31	.7240	.7034
33.3	.6655	.6462
25	.5645	.5467
16.6	.4889	.4722
14.3	.4306	.4145
12.5	.3844	.3689
11.1	.3501	.3348
10	.3214	.3063
9	.2970	.2821
8.5	.2760	.2613
7.7	.2578	.2434
7.4	.2418	.2276
7.3	.2345	.2204
6.7	.2277	.2138
6.2	.2151	.2015
5.9	.2038	.1905
5.6	.1937	.1807
5.3	.1845	.1718
5	.1700	.1638
4.8	.1684	.1563
3.2	.1613	.1495
2	.1140	.1044
1	.0716	.0645
0.65	.0372	.0325
0.50	.0250	.0215
0.25	.0192	.0159
0.125	.0099	.0074
0.062	.0051	.0030
0	.0025	.0006

Linebarger, 1900

t	d	t	d
	0 %		
0	1.000	40	0.992
10	1.000	50	0.988
20	0.998	60	0.983
30	0.996	70	0.978
	2.65 %		
0	1.021	30	1.015
10	1.019	40	1.013
20	1.017	50	1.011
	5.16 %		
0	1.037	30	1.031
10	1.035	40	1.029
20	1.033	50	1.027
	11.87 %		
0	1.081	30	1.072
10	1.078	40	1.069
20	1.075	50	1.066
	18.33 %		
0	1.138	40	1.123
10	1.133	50	1.118
20	1.128	60	1.113
30	1.125	70	1.108
	35.13 %		
0	1.275	40	1.248
10	1.268	50	1.242
20	1.262	60	1.235
30	1.255	70	1.228
	58.05 %		
0	1.494	40	1.462
10	1.486	50	1.454
20	1.478	60	1.446
30	1.470	70	1.438
	65.27 %		
0	1.575	40	1.543
10	1.567	50	1.535
20	1.559	60	1.527
30	1.531	70	1.519
	80.45 %		
0	1.752	40	1.716
10	1.743	50	1.707
20	1.734	60	1.698
30	1.725	70	1.689
	83.23 %		
0	1.783	40	1.746
10	1.774	50	1.737
20	1.764	60	1.728
30	1.755	70	1.718
	95.02 %		
0	1.843	40	1.805
10	1.833	50	1.796
20	1.824	60	1.786
30	1.814	70	1.775

Hess, 1905

%	d	%	d
		15°	
0	0.99913	59.980	1.48032
19.981	1.13814	80.096	1.69550
39.757	1.29359	100	1.84167

Domke and Bein, 1905

%	d 0°	5°	10°	15°	20°
0	0.99987	1.0000	0.99973	0.99913	0.99823
1	1.00745	.0073	1.00685	1.00610	1.00506
2	.01475	.0144	.01378	.01293	.01178
3	.02192	.0214	.02064	.01966	.01839
4	.02911	.0284	.02751	.02638	.02500
5	.03638	.0355	.03442	.03316	.03168
6	.04370	.0426	.04141	.04001	.03843
7	.05107	.0498	.04841	.04695	.04527
8	.05850	.0571	.05560	.05394	.05216
9	.06596	.0644	.06277	.06100	.05910
10	.07365	.0718	.07000	.06810	.06609
11	.08100	.0792	.07727	.07525	.07314
12	.08859	.0866	.08460	.08247	.08026
13	.09622	.0942	.09199	.08976	.08744
14	.10391	.1017	.09944	.09709	.09468
15	.11164	.1093	.10693	.10450	.10199
16	.11942	.1170	.11450	.11195	.10936
17	.12724	.1247	.12211	.11947	.11879
18	.13511	.1325	.12977	.12794	.12428
19	.14302	.1403	.13749	.13467	.13183
20	.15098	.1481	.14525	.14235	.13943
21	.15897	.1560	.15306	.15008	.14709
22	.16701	.1640	.16092	.15787	.15480
23	.17508	.1720	.16884	.16571	.16257
24	.18320	.1800	.17681	.17361	.17041
25	.19136	.1881	.18482	.18157	.17830
26	.19956	.1962	.19289	.18956	.18624
27	.20779	.2044	.20099	.19760	.19422
28	.21603	.2126	.20913	.20559	.20227
29	.22432	.2208	.21731	.21383	.21036
30	.23262	.2291	.22554	.22201	.21870
31	.24095	.2374	.23379	.23023	.22669
32	.24928	.2457	.24207	.23849	.23492
33	.25768	.2541	.25041	.24680	.24320
34	.26612	.2625	.25880	.25516	.25153
35	.27459	.2709	.26723	.26357	.25991
36	.28311	.2794	.27571	.27202	.26836
37	.29170	.2880	.28425	.28052	.27685
38	.30035	.2966	.29287	.28914	.28542
39	.30907	.3053	.30154	.29780	.29406
40	.31785	.3141	.31029	.30656	.30278
41	.32672	.3229	.31911	.31533	.31156
42	.33516	.3318	.32800	.32421	.32042
43	.34469	.3408	.33700	.33318	.32937
44	.35383	.3500	.34610	.34225	.33843
45	.36306	.3592	.35528	.35143	.34759
46	.37241	.3685	.36460	.36072	.35686
47	.38187	.3779	.37402	.37012	.36625
48	.39146	.3875	.38355	.37964	.37574
49	.40116	.3972	.39319	.38926	.38533
50	.41096	.4070	.40296	.39899	.39505
51	.42090	.4169	.41284	.40884	.40488
52	.43095	.4269	.42284	.41881	.41482
53	.44114	.4370	.43295	.42890	.42487
54	.45143	.4473	.44317	.43909	.43503
55	.46184	.4577	.45351	.44939	.44530
56	.47246	.4682	.46396	.45980	.45568
57	.48298	.4787	.47450	.47031	.46616

58	.49369	.4894	.48514	.48092	.47674
59	.50453	.5002	.49589	.49163	.48741
60	.51544	.5111	.50673	.50244	.49819
61	.52616	.5220	.51767	.51334	.50905
62	.53755	.5331	.52869	.52432	.52000
63	.54873	.5442	.53979	.53539	.53103
64	.56000	.5555	.55098	.54654	.54214
65	.57133	.5668	.56224	.55777	.55334
66	.58276	.5782	.57359	.56908	.56461
67	.59426	.5896	.58502	.58047	.57596
68	.60584	.6012	.59653	.59294	.58740
69	.61751	.6128	.60811	.60348	.59891
70	.62926	.6245	.61977	.61510	.61049
71	.64108	.6363	.63151	.62679	.62214
72	.65295	.6481	.64330	.63854	.63385
73	.66488	.6600	.65514	.65034	.64561
74	.67685	.6719	.66702	.66217	.65739
75	.68883	.6838	.67891	.67401	.66918
76	.70080	.6958	.69083	.68584	.68095
77	.71275	.7076	.70263	.69763	.69269
78	.72465	.7195	.71440	.70934	.70433
79	.73647	.7313	.72607	.72093	.71585
80	.74817	.7429	.73757	.73235	.72717
81	.75966	.7542	.74885	.74352	.73827
82	.77089	.7653	.75986	.75442	.74904
83	.78156	.7759	.77038	.76488	.75943
84	.79160	.7860	.78036	.77481	.76933
85	.80093	.7953	.78967	.78411	.77861
86	.80950	.8039	.79825	.79271	.78722
87	.81728	.8117	.80609	.80057	.79507
88	.82430	.8187	.81318	.80768	.80224
89	.83057	.8250	.81952	.81406	.80864
90	.83611	.8306	.82518	.81976	.81449
91	.84103	.8356	.83019	.82483	.81950
92	.84530	.8399	.83459	.82929	.82402
93	.84898	.8437	.83837	.83311	.82791
94	.85202	.8467	.84151	.83630	.83115
95	.85437	.8491	.84394	.83880	.83366
96	.85603	.8508	.84568	.84057	.83549
97	.85692	.8517	.84655	.84145	.83638
98	.85674	.8515	.84628	.84115	.83606
99	.85510	.8498	.84451	.83933	.83421
100	.85169	.8463	.84095	.83569	.83053

	25°	30°	40°	50°	60°
0	0.99567	0.99224	0.98825	0.98809	0.98332
1	1.00378	1.00225	0.99863	0.99435	0.98948
2	.01038	.00875	1.00497	1.00055	0.99557
3	.01688	.01518	.01128	.00673	1.00165
4	.02339	.02162	.01759	.01295	.00777
5	.02996	.02812	.02398	.01924	.01395
6	.03666	.03475	.03048	.02564	.02025
7	.04343	.04144	.03705	.03212	.02652
8	.05024	.04819	.04367	.03861	.03302
9	.05707	.05493	.05027	.04514	.03950
10	.06397	.06174	.05695	.05172	.04605
11	.07093	.06862	.06369	.05838	.05265
12	.07796	.07556	.07052	.06511	.05935
13	.08505	.08258	.07740	.07190	.06610
14	.09221	.08966	.08435	.07877	.07291
15	.09943	.09680	.09138	.08571	.07981
16	.10671	.10402	.09848	.09273	.08677
17	.11408	.11151	.10564	.09981	.09381
18	.12148	.11865	.11288	.10695	.10090
19	.12896	.12606	.12017	.11417	.10805
20	.13649	.13352	.12752	.12144	.11528
21	.14408	.14105	.13495	.12878	.12255
22	.15172	.14864	.14243	.13619	.12990
23	.15944	.15630	.15000	.14367	.13733
24	.16721	.16401	.15761	.15120	.14479
25	.17504	.17180	.16529	.15881	.15234
26	.18292	.17963	.17303	.16647	.15914
27	.19086	.18750	.18083	.17419	.16760
28	.19885	.19545	.18869	.18198	.17532
29	.20690	.20346	.19662	.18983	.18310
30	.21500	.21153	.20460	.19774	.19094
31	.22316	.21964	.21265	.20571	.19884
32	.23136	.22779	.22072	.21370	.20673
33	.23960	.23604	.22891	.22185	.21483
34	.24792	.24431	.23714	.23001	.22293
35	.25628	.25265	.24543	.23824	.23111
36	.26469	.26103	.25377	.24654	.23936
37	.27317	.26950	.26218	.25890	.24769
38	.28172	.27803	.27068	.26537	.25611
39	.29035	.28663	.27926	.27192	.26464
40	.29904	.29532	.28792	.28057	.27328
41	.30781	.30408	.29665	.28929	.28198
42	.31666	.31292	.30547	.29810	.29080
43	.32560	.32184	.31438	.30698	.29967
44	.33463	.33085	.32336	.31595	.30861
45	.34378	.33999	.33246	.32502	.31755
46	.35304	.34922	.34167	.33419	.32681
47	.36240	.35856	.325097	.34346	.33604
48	.37186	.36803	.36038	.35287	.34541
49	.38143	.37757	.36988	.36230	.35482
50	.39113	.38724	.37953	.37190	.36437
51	.40093	.39701	.38926	.38159	.37404
52	.41085	.40691	.39911	.39141	.38381
53	.42087	.41691	.40905	.40132	.39368
54	.43100	.42701	.41910	.41132	.40366
55	.44125	.43722	.42927	.42144	.41374
56	.45159	.44754	.43953	.43165	.42391
57	.46204	.45795	.44989	.44197	.43417
58	.47259	.46848	.46035	.45248	.44453
59	.48323	.47909	.47090	.46288	.45500
60	.49397	.48980	.48156	.47348	.46556
61	.50480	.50060	.49231	.48417	.47620
62	.51571	.51147	.50312	.49492	.48690
63	.52671	.52244	.51402	.50578	.49770
64	.53780	.53348	.52500	.51669	.50857
65	.54895	.54451	.53607	.52770	.51952
66	.56018	.55561	.54770	.53877	.53054
67	.57150	.56710	.55843	.54997	.54164
68	.58289	.57944	.56968	.56110	.53873
69	.59438	.58991	.58110	.57247	.56405
70	.60592	.60141	.59253	.58384	.57535
71	.61753	.61297	.60400	.59524	.58668
72	.62920	.62460	.61555	.60671	.59807
73	.64091	.63627	.62713	.61820	.60947
74	.65264	.64795	.63872	.62969	.62086
75	.66440	.65965	.65031	.64117	.63224
76	.67611	.67132	.66187	.65261	.64355
77	.68779	.68292	.67335	.66395	.65473
78	.69937	.69443	.68469	.67512	.66572
79	.71082	.70582	.69593	.68620	.67663
80	.72206	.71697	.70693	.69706	.68734
81	.73307	.72891	.71771	.70767	.69782
82	.74372	.73846	.72811	.71795	.70801
83	.75404	.74869	.73820	.72792	.71787
84	.76389	.75853	.74790	.73750	.72732
85	.77315	.76775	.75710	.74664	.73638
86	.78175	.77634	.76567	.75521	.74490
87	.78967	.78428	.77364	.76319	.75292
88	.79682	.79146	.78087	.77044	.76022
89	.80327	.79793	.78739	.77701	.76680
90	.80905	.80375	.79326	.78292	.77274
91	.81422	.80896	.79856	.78829	.77817
92	.81878	.81358	.80330	.79315	.78314
93	.82273	.81760	.80744	.79743	.78758
94	.82604	.82096	.81095	.80109	.79140
95	.82863	.82361	.81370	.80396	.79438
96	.83047	.82549	.81566	.80600	.79652
97	.83137	.82641	.81664	.80705	.79667
98	.83104	.82608	.81634	.80682	.79652
99	.82917	.82419	.81446	.80500	.79584
100	.82546	.82046	.81073	.80131	.79225

The values for 5° are copied in Landolt tables, volume I, 5th edition, page 397 .

Jones, 1904 and Jones and Basset, 1905

M	d	M	d
	0°		
0.1	1.005208	2.0	1.119872
0.2	1.009420	2.5	1.148408
0.3	1.016820	2.73	1.159108
0.4	1.023044	3.28	1.192108
0.6	1.034288	3.825	1.219264
0.8	1.044748	4.37	1.246560
1.0	1.060112	4.5	1.260248
1.5	1.091012	5.0	1.277340

Ferguson, 1905

%	d	%	d
	15.56°		
0	0.99904	58.135	1.48080
0.701	1.00372	62.338	.52662
0.713	.00392	63.784	.54253
5.143	.03371	66.516	.57330
9.471	.06378	70.995	.62566
14.219	.09810	74.459	.66630
19.041	.13423	77.550	.70280
23.932	.17240	79.387	.72411
28.546	.20932	81.323	.74556
33.486	.25010	83.474	.76824
38.641	.29386	86.363	.79424
44.144	.34280	88.530	.81000
49.520	.39330	89.742	.81759
53.184	.42941	91.322	.82578
56.674	.46534	93.222	.83380

Dunstan and Wilson, 1907

%	d	%	d
	25°		
99.924	1.82714	81.086	1.73197
97.513	.83171	80.243	.72287
95.723	.82986	79.838	.71844
93.410	.82348	79.528	.70030
92.300	.81930	78.242	.70030
91.363	.81476	76.271	.67756
90.437	.80982	74.746	.65976
89.575	.80525	70.519	.61049
88.733	.79985	69.205	.59488
88.001	.79522	67.209	.57236
86.865	.78650	64.643	.54331
86.979	.78737	58.356	.47457
85.070	.77160	51.640	.40596
84.970	.77074	49.858	.38857
84.280	.76447	43.234	.32691
83.980	.76069	36.427	.26759
83.401	.75588	26.492	.18630
82.580	.74750	15.699	.10413
82.210	.74384	0	0.99717
81.544	.73719		

Jones and Pearce, 1907

M	d	M	d
	20°		
0.010	1.000719	0.50	1.03218
0.025	.001907	0.75	.04760
0.050	.003551	1.00	.06307
0.075	.005152	1.50	.09345
0.10	.00677	2.00	.12316
0.25	.01618		

Kohner and Gressman, 1927 and Fajans, Kohner and Geffcken, 1928

%	mol %	d
	25°	
12.8802	2.65	1.08343
29.0394	6.99	.20662
41.8105	11.65	.31416
48.894	15.24	.37916
70.392	30.40	.60861
75.625	37.59	.6701
84.382	49.75	.7654
89.666	61.35	.8062
95.259	78.74	.8287

Herz, 1930

%	d	%	d
	15°		
19.481	1.13814	59.980	1.48032
39.757	1.29359	80.096	1.69550

Tollert, 1939

N	d	N	d
	20°		
1.962	1.05960	0.0100	0.99867
1.000	1.03012	0.0050	0.99845
0.100	1.00147		

Klotz and Eckert, 1942

M	d	M	d
	25°		
0	0.997074	2.030	1.119288
1.275	1.075087	3.194	1.185392

Kremann and Ehrlich, 1907

%	mol %	Dv/100 cc	
		0-16.40°	15.50-32.50°
96.3	82.5	0.916	0.887
92.9	70.5	0.884	0.901
91.6	65.5	0.902	0.914
89.3	60.5	0.925	0.940
86.5	54.0	0.968	0.983
83.7	48.5	0.996	1.011
81.4	44.5	0.974	0.985
78.1	39.5	0.978	0.959
74.1	34.5	0.926	0.936
67.2	27.5	0.895	0.900
		32.45-40.68°	40.68-50.60°
96.3	82.5	0.436	0.510
92.9	70.5	0.441	0.522
91.6	65.5	0.454	0.545
89.3	60.5	0.475	0.550
86.5	54.0	0.482	0.566
83.7	48.5	0.487	0.569
81.4	44.5	0.475	0.559
78.1	39.5	0.460	0.544
74.1	34.5	0.448	0.535
67.2	27.5	0.440	0.527
		50.60-62.22°	62.22-75.70°
96.3	82.5	0.611	0.709
92.9	70.5	0.619	0.711
91.6	65.5	0.630	0.720
89.3	60.5	0.640	0.745
86.5	54.0	0.665	0.756
83.7	48.5	0.671	0.761
81.4	44.5	0.672	0.752
78.1	39.5	0.644	0.728
74.1	34.5	0.630	0.714
67.2	27.5	0.616	0.700

%	mol %	0-33.4°	33.35-56.50°	63.80-87.90°
96.3	82.5	1.761	1.188	1.270
93.5	72.5	1.779	1.225	1.303
90.0	62.0	1.862	1.291	1.360
87.7	54.0	1.970	1.330	1.392
84.1	49.0	2.000	1.336	1.400
81.1	44.0	1.948	1.320	1.410
76.8	38.0	1.901	1.281	1.351
66.6	27.0	1.810	1.220	1.279

Schmidt, 1905

%	t	π
91.7	20.6	25.0
72.0	19.6	22.8
63.0	19.6	24.2
50.6	18.2	26.1
44.7	18.4	27.6
31.1	19.7	31.4
28.6	18.5	32.3
21	18.7	35.8
20	22	36.5
16.4	18.3	37.9
7	18.5	43.1

Shiba, 1926

%	t	π
96.20	19.3	35.20
	24.4	34.39
90.31	19.7	29.80
	24.4	30.38
81.53	20.0	28.00
	24.0	27.66
60.04	20.0	30.01
	21.2	31.15
30.19	20.0	36.60
	24.3	36.36
0	20.0	45.91
	25.0	45.43

Gibson, 1934

wt %	π	wt %	π
		25°	
0	39.35	59.52	26.84
5.36	38.78	77.67	24.55
12.66	37.04	78.48	24.61
26.67	33.17	86.35	24.0
33.01	31.51	92.77	26.7

Mikhailov and Shutilov, 1956 (fig.)

%	π			
	20°	40°	60°	80°
0	45.5	43	42.5	42.2
4.2	44.5	42.2	41.8	41.5
10	43.5	41	40.5	40.4
15	41.5	39.8	39.7	39.6
20	37.5	37	37	37
25	35.8	35.8	35.8	36.2
35	32	32.5	33	34
50	28.5	29.5	30.5	31.5
70	25.5	26.5	28	29
91.3	28	29.8	31.5	33

Viscosity and surface tension

Wiedemann, 1856

c	minutes of flow	c	minutes of flow
	20°		
0	1	45.84	2.314
3.37	1.060	74.83	3.975
5.90	1.097	92.26	6.064
11.42	1.207	124.04	14.140
22.83	1.500	183.96	21.640

Grotrian, 1877

%	η 10°	η 20°	η 30°
0	1305	1005	802
10.00	1721	1233	971
20.57	2070	1467	1205
30.70	2528	1950	1619
40.07	3527	2673	2121
66.30	10040	6062	3993

Grotrian, 1879

t	η	t	η
	0 %		
14.43	1205.1	27.22	890.3
14.47	1211.3	36.52	738.6
27.00	895.0	37.75	715.0
	10 %		
18.07	1319.4	31.42	980.1
19.33	1279.7	40.13	827.8
29.29	1024.0	40.67	820.2
	19.48 %		
17.29	1683	29.14	1306
18.32	1651	37.58	1077
28.75	1292	37.07	1069
	29.88 %		
16.55	2263	28.27	1720
17.29	2232	36.65	1440
27.81	1730	36.90	1432
	39.89 %		
15.48	3093	28.30	2301
16.55	3020	38.06	1894
27.94	2321	38.25	1885
	50.21 %		
17.75	4156	29.25	3227
17.92	4131	29.48	3182
18.15	4113	36.14	2791
18.58	4064	37.69	2710
	59.72 %		
15.85	6594	28.18	4903
16.37	6505	38.25	3962
27.55	4970	38.50	3944
	70.25 %		
16.03	12303	28.44	8721
16.60	12085	37.26	7025
27.77	8866	37.43	7005
	81.92 %		
16.22	28700	37.40	13510
27.37	18770	38.08	13260
28.31	18160		
	84.77 %		
15.47	32650	29.56	18980
16.82	30750	37.54	14550
29.20	19140	37.78	14430
	87.57 %		
15.22	32940	28.69	19770
15.29	32790	35.60	15830
28.55	19860	39.80	13850

Wagner, 1883

t	η (water°=1) 23.429 %	η (water°=1) 15.503 %	η (water°=1) 7.875 %
15	1.2271	0.9507	0.7781
25	0.9550	0.7499	0.6090
35	0.7747	0.6053	0.5001
45	0.6427	0.4977	0.4169

D'Arcy, 1889

t	η (water^{20}=1)	t	η (water^{20}=1)
	98 %		
14.4	25.1	55	7.51
22.1	18.8	72	5.24
27.5	15.7	85	4.08
37.5	17.2	100.5	3.24
45.5	9.48		
	86.2 %		
14.4	28.97	55	7.61
20.7	22.3	70	5.37
28.2	17.1	85	3.97
36.5	12.9	100	3.11
45.5	9.91		
	83.3 %		
12	29.16	47.2	8.64
25	17.6	56.5	6.89
35.3	12.3	66.3	5.48
	80.3 %		
14	22.4	69.9	4.54
27.5	13.8	80.2	3.75
41.3	8.88	90	3.13
50.5	7.05	100	2.70
	73.4 %		
11.4	14.36	59.8	4.16
23.4	9.77	72.8	3.27
36.4	6.92	88.5	2.54
50.3	5.02	100.5	2.15

Kremann and Ehrlich, 1907

wt %	mol %	η (water°=1)		
		0°	33°	
13.7	3.0	1.247	0.820	
36.1	9.5	2.134	1.266	
54.6	20.0	4.449	2.073	
66.7	27.0	8.640	3.486	
71.9	31.0	13.167	4.748	
76.8	38.0	19.290	6.379	
81.1	44.0	28.374	8.370	
84.1	49.0	36.412	9.050	
87.7	54.0	34.860	9.101	
89.9	62.0	30.560	8.823	
93.5	72.5	25.330	8.444	
96.3	82.5	29.340	8.932	
		63.5°	98.5°	128.0°
13.7	3.0	0.647	0.516	-
36.1	9.5	0.920	0.737	-
54.6	20.0	1.415	1.064	-
66.7	27.0	2.024	1.437	1.232
71.9	31.0	2.518	1.654	-
76.8	38.0	3.087	1.875	1.405
81.1	44.0	3.648	2.072	-
84.1	49.0	3.945	2.187	1.525
87.7	54.0	4.033	2.254	1.598
89.9	62.0	4.076	2.261	1.653
93.5	72.5	4.023	2.230	1.722
96.3	82.5	4.132	2.231	1.794

Dunstan and Wilson, 1907 and 1914

%	η	%	η
	25°		
99.924	24682	81.086	19403
97.513	19939	80.243	18158
95.723	19357	79.838	14013
93.410	19579	79.528	17235
92.300	19783	78.242	15630
91.363	20264	76.271	13345
90.437	20578	74.746	12463
89.575	22118	70.519	9322
88.733	21294	69.205	8475
88.001	21522	67.209	7515
86.865	21708	64.643	6520
86.979	21745	58.356	4782
85.070	22040	51.640	3574
84.970	21615	49.858	3419
84.280	21513	43.234	2626
83.980	21160	36.427	2148
83.401	21126	26.492	1655
82.580	20888	15.699	1360
82.210	20128	0	891
81.544	19327		

Bingham and Stone, 1923

%	η		
	10°	20°	40°
97.70	35000	24220	13070
97.77	35120	24260	13070
87.62	39140	25880	13220
87.69	39170	25890	13220
75.23	20880	14830	8424
74.83	20880	14830	8416
62.67	8679	6604	4230
62.85	8700	6627	4223
-	-	6620	4223
-	8692	6611	4230
50.03	4895	3779	2496
50.07	4893	3800	2495
37.86	3180	2524	1650
37.80	3183	2525	1649
25.10	2276	1749	1140
25.05	2276	1749	1139
11.76	1804	1418	968
11.75	1805	1417	967

Rhodes and Barbour, 1923

%	η			
	0°	25°	50°	75°
0.00	1800	940	556	390
5.00	1970	1010	620	440
9.39	2100	1110	680	480
13.42	2260	1220	720	510
17.42	2420	1340	760	560
20.34	2620	1410	850	600
24.10	2960	1580	960	660
29.80	3390	1880	1120	770
39.70	4470	2460	1600	1070
51.20	6850	3730	2420	1720
62.50	11560	5930	3530	2520
70.90	21600	9450	5260	3420
78.20	43200	15500	7550	4460
81.40	-	19000	8570	4900
83.50	-	19700	9080	5170
87.50	54600	19000	9180	5320
90.30	46800	18130	9030	5320
94.75	44800	17600	9030	5350
98.30	53400	-	10050	5720
99.60	-	-	10800	6060

Grunert, 1925 (fig.)

t	η			
	3.475 N	1.7375 N	0.8688 N	0.4344 N
20	1909	1382	1169	1088
40	1233	905	766	713
60	886	645	551	512
80	676	495	424	395

Rhodes and Hodge, 1929 (fig.)

%	η 0°	25°	50°	75°
0	2000	1000	600	400
10	2500	1500	700	500
20	3000	2000	800	600
30	4000	2500	1050	700
40	5000	3000	1400	950
50	6500	4000	1900	1400
60	10500	5500	2900	1950
70	18000	8000	4650	3000
80	46000	17000	7900	4500
85	65000	22000	9300	5200
90	60000	21000	9500	5350
95	49000	19000	9350	5350
100	69000	24500	10600	5750

Vinal and Craig, 1933

%	η 30°	25°	20°	10°	0°
10	976	1091	1228	1595	2160
15	1088	1218	1372	1784	2410
20	1225	1371	1545	2010	2710
25	1392	1559	1755	2274	3080
30	1596	1784	2006	2600	3520
35	1850	2067	2319	2990	4040
40	2163	2409	2700	3480	4700
45	2561	2850	3190	4090	5490
50	3074	3400	3790	4860	6520

%	η -10°	-20°	-30°	-40°	-50°
20	3820	-	-	-	-
25	4330	6630	-	-	-
30	4950	7490	12200	-	-
35	5700	8560	13900	25300	52600
40	6600	9890	16000	28800	59500
45	7720	11500	18600	33000	-
50	9150	13600	21700	-	-

Tollert, 1939

N	η	N	η
	20°		
1.962	1199.5	0.0100	1006.6
1.000	1101.8	0.0050	1005.8
0.100	1016.1		

Srinivasan and Prasad, 1939

%	η	%	η
	35°		
2.7573	765.45	62.069	4599.3
3.3437	774.04	63.579	5366.2
3.7594	781.05	65.207	5610.0
4.1671	786.37	70.888	7703.8
5.1652	797.15	72.052	8063.1
11.323	915.71	75.241	9561.2
16.132	1019.2	77.838	11448
17.368	1113.1	78.638	12225
23.881	1233.8	80.906	13414
27.100	1346.3	83.289	14890
31.211	1512.5	86.161	15570
35.879	1766.4	89.418	15245
38.957	1912.6	89.885	15169
41.854	2116.1	91.875	14631
45.248	2350.0	93.412	14429
46.782	2501.7	95.469	14401
50.363	2873.3	99.20	15226
52.395	3056.2	99.91	17398
55.423	3419.2	100	17684

Roberts, 1944

$2.71\ \eta = (\ 304/(t+1.7\ c-47)\ )^a$

between 86 % and 98 % :

$3.63\ \eta = (\ 374/(t+1.7\ c-47)\ )^a$

where c = % acid and a = constant

(fig.)	%	a	%	a
	50	1.3	86	4.3
	60	1.8	86	4.0
	70	2.6	90	4.1
	80	3.75	100	4.7

Campbell, Kartzmark and al., 1953

%	η	%	η
	50°		
8.95	580.2	60.45	3076
17.11	782.8	67.65	4467
24.15	935.5	72.62	5891
30.85	1123.0	75.41	6868
43.45	1671.2	82.95	9543
53.12	2349.8	92.8	9696
55.74	2642	96.2	9952
	75°		
8.95	389.3	60.45	1791
17.11	457.5	67.65	2074
24.15	552.7	72.62	2975
30.85	552.9	75.41	3713
37.53	779.9	82.95	4148
43.45	951.5	92.80	5341
53.12	1147.1	96.20	5666
55.74	1794 (sic)		

Schwab and Kolb, 1955

%	η 20°	30°	50°	80°	110°	132°
80	20730	14690	8240	4280	3062	2001
84	24840	17180	9320	4720	3331	2149
85	25200	17450	9460	4780	3372	2176
86	25280	17550	9550	4840	3415	2205
87	25140	17520	9580	4880	3447	2222
88	24630	17280	9540	4890	3464	2237
90	23610	16815	9470	4920	3506	2275
92	22550	16270	9330	4930	3528	2298
93	22120	16030	9250	4920	3529	2302
94	21860	15900	9230	4924	3534	2308
95	21930	15980	9300	4960	3559	2320
96	22200	16165	9380	4995	3574	2328
98	24080	17320	9830	5110	3615	2326
99	26650	18820	10370	5230	3652	2316
100	28210	19690	10690	5310	3691	2317

Volkmann, 1882

d	σ	d	σ
15°			
1.8278	60.7	1.2636	76.6
1.6657	69.0	0.9991	73.3
1.4453	76.6		

Linebarger, 1900

%	σ 0°	10°	20°	30°
0	75.49	74.01	72.53	71.03
2.65	73.60	72.69	72.02	71.13
5.16	74.02	73.14	72.31	71.29
11.87	74.75	74.10	73.48	72.58
18.33	75.30	74.44	73.59	72.75
35.13	77.19	76.68	76.34	75.45
58.05	77.60	77.44	77.25	77.08
65.27	77.41	77.34	77.29	77.13
80.45	66.60	66.40	66.32	66.00
83.23	64.18	64.09	63.89	63.70
95.02	58.26	57.97	57.76	57.53
	40°	50°	60°	70°
0	69.54	67.8	66.0	64.2
2.65	70.07	69.01	-	-
5.16	70.43	69.33	-	-
11.87	71.52	70.45	-	-
18.33	71.92	70.90	69.95	68.89
35.13	74.68	74.05	73.15	72.25
58.05	76.76	76.49	76.03	75.55
65.27	76.99	76.89	76.74	76.31
80.45	65.92	65.79	65.67	65.50
83.23	63.54	63.48	63.37	63.19
95.02	57.43	57.36	57.28	56.89

Whatmough, 1902

%	σ	%	σ
18°			
0	74.16	49	78.87
10	74.72	50	78.94
20	75.81	52	78.70
30	77.17	54	78.63
40	78.40	56	78.51
41	78.49	58	78.37
42	78.65	60	78.38
43	78.76	70	77.00
44	78.88	80	74.11
45	79.15	90	67.30
46	79.14	92.5	64.74
47	79.01	95	61.44
48	79.04	98.4	56.15

Grunmach, 1902

%	t	σ
0	19.1	75.26
10	19.0	75.67
20	21.8	76.84
30	21.9	77.62
40	19.4	78.80
50	20.7	82.13

Sabinina and Terpugov, 1935

%	σ 10°	20°	30°	40°	50°
0.00	74.01	72.53	71.03	69.54	67.80
5.43	75.57	74.43	73.48	72.62	71.55
10.13	77.10	76.19	75.35	74.54	73.55
11.19	77.25	76.41	75.56	74.90	73.90
13.22	77.40	76.57	75.78	75.22	74.33
17.12	77.18	76.45	76.03	75.59	74.99
19.12	76.79	76.30	75.93	75.57	75.11
21.50	76.40	76.06	75.72	75.39	74.94
26.49	75.50	75.15	74.87	74.57	74.20
33.30	73.98	73.73	73.46	73.20	72.95
41.50	71.80	71.52	71.24	70.98	70.73
52.85	68.00	67.71	67.43	67.17	66.92
67.12	62.26	61.98	64.70	61.43	61.15
88.50	55.22	54.86	54.56	54.27	54.00
100	52.92	52.55	52.23	51.95	51.70

Morgan and Davis, 1916

%	σ 0°	σ 30°	σ 50°
0	75.75	71.03	67.59
4.67	75.35	71.15	67.96
8.93	75.27	71.31	68.26
16.40	75.66	71.87	68.95
22.73	76.07	72.62	69.80
28.18	76.56	73.10	70.52
32.90	76.91	73.60	71.24
37.05	77.02	73.97	71.70
40.71	77.05	74.27	72.12
42.38	77.11	74.34	72.35
43.97	77.02	74.39	72.38
45.56	76.97	74.42	72.44
46.88	76.80	74.46	72.51
48.06	-	74.37	-
48.23	76.57	74.34	72.50
49.51	76.41	74.30	72.49
54.10	75.82	74.06	72.41
57.86	75.17	73.80	72.24
61.08	74.45	73.29	72.01
66.23	73.39	72.47	71.34
70.18	72.21	71.63	70.41
72.95	71.49	71.00	69.85
75.84	70.63	70.03	68.87
79.69	69.06	68.66	67.24
83.66	67.22	66.72	65.47
86.26	-	64.12	-
87.29	64.12	63.29	62.20
89.29	62.06	61.24	60.10
91.82	-	58.34	-
92.62	-	57.53	56.70
93.63	57.06	55.56	56.42
94.49	56.18	55.44	54.67
95.15	-	54.68	-
95.66	54.98	54.28	53.61
96.12	54.44	53.67	53.08
96.89	-	52.79	-
97.32	-	52.33	-
99.20	-	50.23	-
99.46	-	50.08	-
99.80	-	49.63	49.06
100.00	-	49.62	-
100.80	-	49.47	-
101.60	-	49.53	-
102.40	-	49.62	-
102.60	-	49.72	-
103.05	-	49.91	-
103.10	-	49.98	-
103.45	-	50.01	-

Suggit, Aziz and Wetmore, 1949

%	σ	%	σ
	25°		
4.11	72.21	21.88	73.91
8.26	72.55	29.07	74.80
12.18	72.80	33.63	75.29
17.66	73.36		

Optical and electrical properties .

van der Willigen, 1868

%	n A	n α	n B	n C
	18.3°			
0.00	1.32925	1.33006	1.33070	1.33142
0.10	.32942	.33011	.33076	.33141
0.15	.32933	.33009	.33079	.33148
4.46	.33442	.33521	.33588	.33663
15.82	.34786	.34874	.34946	.35021
19.00	.35187	.35274	.35349	.35426
23.29	.35746	.35836	.35913	.35995
30.10	.36541	.36630	.36708	.36708
38.78	.37603	.37699	.37783	.37867
47.22	.38630	.38731	.38823	.38910
56.25	.39797	.39898	.39995	.40082
63.69	.40819	.40928	.41016	.41112
71.97	.41930	.42042	.42133	.42227
81.41	.43049	.43168	.43263	.43360
85.93	.43279	.43385	.43476	.43579
88.97	.43151	.43270	.43357	.43444
91.43	.42918	.43035	.43114	.43198
94.72	.42684	.42781	.42868	.42944
	D	E	β	F
0.00	1.33327	1.33548	1.33589	1.33739
0.10	.33332	.33553	.33597	.33749
0.15	.33335	.33558	.33600	.33749
4.46	.33862	.34089	.34133	.34285
15.82	.35219	.35457	.35504	.35662
19.00	.35630	.35873	.35916	.36071
23.29	.36199	.36441	.36486	.36644
30.10	.37009	.37260	.37308	.37468
38.78	.38084	.38340	.38388	.38552
47.22	.39131	.39393	.39444	.39612
56.25	.40308	.40574	.40627	.40793
63.69	.41342	.41618	.41669	.41838
71.97	.42466	.42740	.42793	.42967
81.41	.43596	.43877	.43928	.44103
85.93	.43807	.44081	.44130	.44311
88.97	.43669	.43944	.43996	.44168
91.43	.43426	.43701	.43749	.43922
94.72	.43163	.43431	.43484	.43649
	G'	G	H'	H
0.00	1.33930	1.34087	1.34259	1.34377
0.10	.33940	.34093	.34257	.34385
0.15	.33939	.34099	.34265	.34387
4.46	.34483	.34637	.34810	.34938
15.82	.35868	.36022	.36199	.36329
19.00	.36277	.36437	.36610	.36736
23.29	.36842	.27010	.37192	.37321
30.10	.37679	.37846	.38022	.38158
38.78	.38756	.38930	.39115	.39243
47.22	.39824	.39998	.40184	.40316
56.25	.41013	.41184	.41370	.41514
63.69	.42058	.42233	.42421	.42567
71.97	.43186	.43364	.43561	.43696
81.41	.44327	.44507	.44703	.44841
85.93	.44534	.44706	.44901	.45040
88.97	.44392	.44569	.44759	.44883
91.43	.44144	.44316	.44512	.44640
94.72	.43869	.44037	.44229	.44347

Le Blanc, 1889

%	n_D	%	n_D	%	n_D
		20°			
94.11	1.42879	35.77	1.37731	4.78	1.33890
79.68	.43459	21.68	.35756	0	.33325
60.98	.40998	10.10	.34527		

Le Blanc and Rohland, 1896

%	n_D	%	n_D
	20°		
79.68	1.4343	10.10	1.3450
60.98	.4097	4.78	.3386
35.77	.3770	0	.3333

Wagner, 1903

c	n_D	c	n_D
	17.5°		
0	1.33320	14.566	1.34947
0.290	.33358	14.917	.34984
0.590	.33397	15.268	.35021
0.897	.33435	15.620	.35058
1.209	.33474	15.972	.35095
1.526	.33513	16.325	.35132
1.848	.33551	16.678	.35169
2.174	.33590	17.032	.35205
2.503	.33628	17.387	.35242
2.835	.33667	17.742	.35279
3.169	.33705	18.098	.35316
3.506	.33743	18.455	.35352
3.844	.33781	18.812	.35388
4.182	.33820	19.170	.35425
4.521	.33858	19.529	.35461
4.860	.33896	19.889	.35497
5.200	.33934	20.249	.35533
5.541	.33972	20.610	.35569
5.882	.34010	20.971	.35606
6.225	.34048	21.333	.35642
6.568	.34086	21.695	.35678
6.911	.34124	22.057	.35714
7.254	.34162	22.422	.35750
7.598	.34199	22.787	.35786
7.942	.34237	23.153	.35822
8.287	.34275	23.520	.35858
8.632	.34313	23.887	.35894
8.978	.34350	24.256	.35930
9.324	.34388	24.625	.35966
9.671	.34426	24.995	.36002
10.018	.34463	25.366	.36038
10.366	.34500	25.738	.36074
10.714	.34537	26.110	.36109
11.063	.34575	26.483	.36145
11.413	.34612	26.857	.36131
11.763	.34650	27.231	.36217
12.113	.34687	27.606	.36252
12.463	.34724	27.982	.36287
12.813	.34761	28.359	.36323
13.163	.34798	28.737	.36359
13.513	.34836	29.116	.36394
13.864	.34873	29.496	.36429
14.215	.34910		

Chêneveau, 1904 and 1907

%	n_D	%	n_D
	15°		
95.38	1.4317	24.60	1.3636
89.87	.4379	21.92	.3602
83.88	.4377	19.15	.3568
77.33	.4312	16.26	.3531
70.15	.4216	16.18	.3532
61.69	.4104	13.26	.3494
52.36	.3981	10.15	.3456
41.99	.3853	6.93	.3418
30.14	.3706	3.41	.3375
29.68	.3698	0	.3334
27.20	.3667		

Veley and Mauley, 1905

%	n H_α	n D	n H_β	n H_γ
		15°		
0.84	1.332805	1.334664	1.338807	1.342029
1.76	.333944	.335794	.339984	.343181
3.88	.336416	.338313	.342490	.345704
5.1	.337896	.339855	.343964	.347326
9.58	.343485	.345361	.349633	.352955
14.0	.349001	.350953	.355233	.358576
18.31	.354322	.356297	.360653	.363939
22.16	.359194	.361248	.365598	.368854
25.9	.364051	.366050	.370506	.373882
29.24	.368110	.370196	.374726	.378211
30.86	.370161	.372280	.376830	.380248
34.35	.374213	.376332	.380948	.384426
38.48	.379184	.381388	.386002	.389530
42.45	.384119	.386350	.390990	.394507
46.46	.388987	.391184	.395934	.399508
52.24	.396336	.398589	.403405	.406851
56.22	.401655	.403907	.408767	.412274
59.65	.406267	.408582	.413445	.416976
62.88	.410536	.412850	.417767	.421437
66.44	.415487	.417822	.422782	.426452
69.6	.419838	.422156	.427177	.430848
72.28	.423549	.425950	.430943	.434584
74.86	.426858	.429185	.434234	.437933
76.3	.428767	.431132	.436185	.439887
76.59	.429030	.431388	.436494	.440167
78.09	.430841	.433203	.438242	.441983
80.05	.432946	.435290	.440335	.444079
80.43	.433230	.435628	.440658	.444380
81.77	.434442	.436818	.441871	.445582
83.2	.435459	.437820	.442875	.446570
84.56	.436051	.438403	.443417	.447071
85.50	.436267	.438632	.443603	.447277
85.92	.436272	.438632	.443651	.447384
86.37	.436246	.438591	.443570	.447324
87.40	.436065	.438410	.443410	.447031
90.53	.43418	.436468	.441361	.449978
95.33	.430862	.433061	.437836	.441402
97.3	.425367	.427482	.432064	.435420
98.7	.419470	.421558	.426025	.429396
99.3	.418387	.420450	.425845	.428206

%	$\tau \cdot 10^6$	%	$\tau \cdot 10^6$
0.84	86	9.58	150
1.76	101	14.0	170
3.83	101	18.31	213
5.1	130	22.16	256

Zecchini, 1905

%	t	n_D
97.7800	17.2	1.42564
92.8254	16	.43471
90.7557	16	.43622
67.7337	16.6	.41836
42.3813	18.6	.38466
42.2353	18.3	.38464
31.3853	15.9	.37181
25.7866	16.0	.36407
16.0002	17.1	.35238
10.1461	15.2	.34527
7.0247	17.2	.34122
7.0157	16.2	.34139
6.9616	16.9	.34130
6.8119	16.1	.34113
3.6361	20.1	.33695
2.1892	16.6	.33550
1.9153	20.8	.33484
1.7843	19.2	.33475
1.7698	18.6	.33467
0	20	.33298

Hess, 1905

%	n			
	C	D	F	G’
		15°		
0	1.33184	1.33364	1.33775	1.34100
19.981	.35588	.35782	.36223	.36563
39.757	.37959	.38169	.38632	.39002
59.980	.40429	.40653	.41139	.41520
80.096	.42854	.43083	.43586	.43958
100	.42564	.42772	.43226	.43577

Guerdjikova, 1910

%	n_D	%	n_D
		25°	
0	1.33255	62.553	1.4099
18.972	.3555	80.130	.5791
36.327	.3766	94.717	.5738

Kohner and Gressmann, 1927

%	mol %	n_{He}
	25°	
12.8802	2.65	1.34750
29.0394	6.99	.36740
41.8105	11.65	.38297
48.894	15.24	.39176
70.392	30.40	.42075
75.625	37.59	.42754
84.382	49.75	.43559
89.666	61.35	.43484
95.259	78.74	.42831

Hantzsch and Dürigen, 1928

%	n_D	%	n_D
		20°	
100	1.41827	6.7669	1.34111
84.38	.43720	5.1678	.33921
73.13	.42589	4.710	.33872
60.57	.40874	4.5146	.33847
35.239	.37621	4.0018	.33792
17.890	.35465	3.017	.33668

Fajans, Kohner and Geffcken, 1928

%	n_{5870}	%	n_{5870}
		25°	
12.8802	1.34750	75.625	1.42754
29.0394	.36740	84.382	.43559
41.8106	.38297	89.666	.43484
48.894	.39176	95.259	.42831
70.392	.42075		

Herz, 1930

%	n_D
15°	
19.981	1.35782
39.757	.38169
59.980	.40653
80.096	.43083

Guillaume, 1946

%	t	$n_{5780\ \mathring{A}}$
6.26	20	1.3421
12.20	20	.3488
23.53	19	.3636
37.10	20	.3793
49.85	20	.3951
63.69	20	.4137
93	21	.4318

Perkin, 1886

composition	t	$(\alpha)_{magn}$
100 %	20.25	0.7804
(1+1)	20.16	0.8775
(2+1)	20.75	0.9100
(3+1)	23.00	0.9272

Perkin, 1893

%	$(\alpha)_{magn.}$	$(\alpha)^{mol}_{magn.}$
	15°	
99.920	0.7785	2.304
96.598	.8104	2.287
93.663	.8298	2.258
84.349	.8824	2.194
72.998	.9134	2.114
64.413	.9305	2.064
57.938	.9432	2.038
47.407	.9599	1.983
35.163	.9799	1.952
28.005	.9887	1.939
18.921	.9955	1.916
14.019	.9977	1,902
11.154	.9994	1.926
9.179	.9999	1.924

Forchheimer, 1900

%	$(\alpha)^{mol}_{magn.}$	%	$(\alpha)^{mol}_{magn.}$
	20°		
70.07	2.072	36.68	1.960
59.26	2.072	25.00	2.030
49.10	1.991	9.25	2.196

Guerdjikova, 1910

%	$(\alpha)^{mol}_{magn.}$
25°	
0	5.068
18.972	4.823
36.327	4.723
62.553	4.478
80.130	4.331
94.717	3.917

De Mallemann and Guillaume, 1945

$(\alpha)_{magn.}$ falls first rapidly with dilution, then rises slowly .

Guillaume, 1946

%	t	$(\alpha)_{magn.}.10^6$
6.26	20	3.820
12.20	20	3.674
23.53	19	3.390
37.10	20	3.042
49.85	20	2.728
63.69	20	2.408
93	21	1.805

$(\alpha)_{magn.}$ in radians, gauss, centim.

Okazaki, 1935

%	Verdet's constant.10^5 (3441 Å)	%	Verdet's constant.10^5 (3441 Å)
	28°		
10.34	4386	43.15	4176
21.30	4340	55.15	4057
25.16	4302	65.26	3966
34.12	4286		

Mc Clung and Mc Intosh, 1902

d	% X-ray absorption	d	% X-ray absorption
	at room t.		
1.321	99.0	1.043	79.7
1.165	95.7	1.021	74.4
1.085	88.0	1.000	66.4

Bell and Jeppesen, 1934

Raman spectrum

%	frequencies (cm^{-1}) I	II	III	IV	V	VI
100	363	556	905	-	-	1123
95	395	557	906	-	1027	1123
75	417	575	909	-	1027	-
50	425	582	887	-	1028	-
25	425	582	887	984	1041	-
10	433	595	-	974	1041	-

Féneant, 1948

Raman spectra (see author) .

Decker, 1926

%	t	χ
22.0	19.1	-0.6231
48.0	19.3	-0.5640
77.0	19.3	-0.4779

Farquharson, 1931

%	χ	%	χ
99.45	-0.4022	42.44	-0.5649
98.18	.4120	42.30	.5678
98.01	.4142	42.04	.5672
97.60	.4160	40.84	.5645
96.66	.4204	39.06	.5830
95.06	.4321	37.40	.5857
94.03	.4333	36.84	.5894
92.25	.4397	35.95	.5921
88.42	.4438	34.48	.6049
84.60	.4399	34.01	.6103
84.18	.4384	31.94	.6122
83.98	.4467	29.11	.6107
82.34	.4362	28.75	.6132
79.68	.4476	27.49	.6095
77.58	.4540	26.97	.6141
75.03	.4642	24.84	.6263
70.58	.4784	24.21	.6273
70.23	.4751	22.67	.6378
65.60	.4872	21.34	.6394
62.13	.5015	20.79	.6348
61.98	.5038	19.51	.6369
61.21	.5086	19.48	.6365
59.69	.5128	18.89	.6483
59.05	.5153	18.80	.6451
56.56	.5233	17.49	.6550
55.77	.5254	16.72	.6613
54.49	.5318	15.99	.6670
53.38	.5350	15.16	.6660
51.35	.5457	14.98	.6587
51.14	.5441	14.59	.6630
48.36	.5535	13.44	.6522
46.31	.5502	12.83	.6514
45.60	.5520	11.45	.6692
45.60	.5548	9.88	.6860
44.36	.5622	8.71	.6907
44.24	.5641	6.40	.7010
44.07	.5618	3.19	.7185

Pacault and Chédin, 1950

%	χ	%	χ
	15°		
0	-0.720	58.5	-0.518
10.4	-0.683	62.8	-0.504
23.0	-0.645	63.5	-0.506
28.0	-0.623	69.7	-0.485
38.2	-0.589	78.5	-0.467
40.2	-0.586	90.5	-0.429
45.9	-0.565	98.2	-0.409
49.0	-0.552	100	-0.406
55.8	-0.526		

Electrical properties .

Becker, 1850

Electrical conductivity : historical data (arbitrary units) .

Grotrian, 1874

t	κ	t	κ
	7.729 %		
9.33	2800	43.45	4072
13.51	2957	50.34	4280
30.24	3626	70.42	4816
	15.023 %		
8.29	4854	50.78	7849
13.46	5241	57.11	8201
30.34	6391	59.01	8143
33.86	6708	67.83	8787
36.68	6936	69.62	8817
	20.434 %		
8.22	5874	55.80	10278
29.62	7999	59.33	10680
37.99	8779	67.69	11143
	29.161 %		
6.34	6272	60.41	12610
8.48	6618	65.89	13221
21.14	8094		
	41.474 %		
8.72	5868	39.47	9837
13.80	6556	55.68	11855
15.59	6748	69.38	13618
	46.174 %		
8.14	5237	40.30	9183
30.96	8006	53.11	10576
39.59	9039	68.26	12574
	50.062 %		
7.73	4629	35.09	7603
19.52	5904	42.83	8583
24.82	6475	54.55	9926
26.83	6740	69.24	11698
31.67	7335		
	54.706 %		
8.59	4006	56.11	8839
14.24	4545	57.63	8914
35.53	6789	68.02	10208
41.58	7287		
	95.327 %		
3.39	713	40.69	1821
11.74	905	57.02	2456
22.58	1214	70.18	3048

Kohlrausch, 1876

%	κ	τ, 10⁴
	18°	
1.03	471	-
2.51	1091	-
5.02	2067	121
5.05	2110	-
10.05	3911	-
15.33	5493	138
19.95	6485	-
24.89	7123	-
29.92	7347	-
34.87	7212	174
39.79	6786	-
49.61	5434	-
59.95	3715	213
66.16	2716	236
71.46	1938	265
75.00	1510	291
78.70	1179	332
82.06	1005	361
84.49	972	367
86.10	985	357
87.52	1014	343
90.5	1078	316
92.9	1090	286
95.2	1008	283
96.4	897	283
96.7	832	283
97.2	799	289
99.6	127	-
99.4	85	426

Guthe and Briggs, 1895 - 1896

t	κ	t	κ
	97 %		
2.8	674.5	17.5	1036.1
8.0	789.3	22.5	1178.0
12.9	909.8	29.0	1374.1
	93.05 %		
2.5	685.6	16.7	1050.6
6.4	764.7	21.4	1202.0
12.1	921.3	23.3	1440.0
	91 %		
0.6	621.4	22.9	1232
6.4	758.5	23.2	1254
12.3	912.7	28.8	1446
17.0	1047		
	88.6 %		
1.0	578.3	17.0	996.7
6.0	692.1	21.8	1154
11.0	829.7	29.2	1426
	86.55 %		
0.0	515.1	19.1	1026.6
3.8	592.4	23.3	1175.1
8.9	728.4	29.3	1387.2
14.6	889.5		
	85.7 %		
0.0	497.2	15.5	891.1
8.0	675.5	23.0	1142.1
	84.5 %		
0.0	481.2	17.4	943.2
5.9	607.6	24.0	1172.7
11.8	774.9	30.5	1429.0
	80.75 %		
0.0	583.9	20.0	1147.0
6.0	703.9	24.9	1328.9
10.0	824.3	30.3	1545.5
15.5	994.3		
	78.6 %		
0.0	682.0	20.1	1316.6
5.8	830.5	24.4	1473.4
10.7	983.9	29.8	1702.8
14.8	1124.0		
	76.2 %		
0.0	814.8	19.7	1473.4
5.7	957.5	24.3	1672.8
10.0	1108.7	29.0	1883.3
14.9	1286.7		
	73.88 %		
0.0	964.0	19.3	1687.7
5.3	1128.4	24.1	1895.8
10.8	1323.9	30.5	2204.5
15.3	1504.6		

Kunz, 1902 and 1903

t	κ	t	κ
	19.1 %		
0	5188.67	-15.12	2657.59
- 5.72	4776.00	-18.37	1942.54
-10.70	3699.69		
	28.0 %		
0	5138.15	-19.83	3038.50
- 8.08	4304.50	-28.72	2204.38
-16.36	3350.74	-32.33	1834.89
	32.66 %		
0	4997.15	-19.79	3013.4
- 9.41	3977.32	-34.08	1679.0
-14.25	3420.05	-44.55	659.58
	37.27 %		
0	4805.95	-28.69	1969.66
- 7.62	4006.87	-54.23	518.31
-15.53	3175.93	-66.80	100.94
-19.83	2820.33		
	42.05 %		
0	4472.95	-28.35	2035.49
-10.90	3352.52	-59.55	279.74
-20.53	2610.59	-74.34	47.256
	45.49 %		
0	4165.84	-31.98	1466.09
-10.79	3123.44	-58.76	206.45
-20.63	2307.08	-68.96	49.202
	50.86 %		
0	3571.35	-28.55	1402.39
-10.48	2700.74	-49.10	392.80
-20.56	1936.31	-66.08	45.71
	56.26 %		
0	2842.83	-25.47	1271.29
- 9.91	2145.34	-32.40	927.27
-20.28	1528.69	-51.85	179.94
	60.90 %		
0	2320.69	-33.37	718.66
-10.49	1708.72	-51.91	193.93
-20.27	1236.55	-69.88	13.12
	63.76 %		
0	1929.19	-20.55	718.61
-10.16	1431.59	-56.06	58.66
-20.17	1020.67	-65.87	6.56
	70.43 %		
0	1257.64	-20.02	629.15
- 9.89	909.34	-30.66	374.09

Jones, 1904 and Jones and Bassett, 1905

M	molecular conductivity
0°	
0.1	305.0
0.2	282.0
0.3	280.0
0.4	273.6
0.6	264.8
0.8	257.0
1.0	253.4
1.5	221.25
2.0	199.42
2.5	178.78
2.5	178.79
2.73	175.54
3.0	155.29
3.28	147.50
3.5	135.00
3.825	127.70
4.0	118.86
4.37	105.50
4.5	100.21
5.0	86.97

Felipe, 1905

t	κ	t	κ
27.21 mol %			
0	1767	49.4	4882
4.4	1995	55.4	5385
11.6	2407	61.8	5851
17.0	2700	68.4	6432
25.4	3284	74.8	7100
31.4	3673	81.6	7536
37.4	4047	87.4	8006
43.4	4479		
17.88 mol %			
3.2	3204	45.4	7606
4.4	3589	51.6	8385
7.4	3833	57.4	8801
11.4	4197	63.4	9439
16.4	4659	68.8	9971
22.6	5219	75.4	10574
28.8	5797	80.8	11131
34.4	6495	87.4	11813
39.4	6968		
13.08 mol %			
1.4	4003	48.4	9087
6.4	4569	52.4	9494
11.4	5103	53.4	9573
17.0	5524	59.4	10244
23.0	6320	71.4	11221
31.4	7176	77.4	11669
39.4	8075	90.9	12647
42.4	8424		
9.90 mol %			
10.4	6225	62.0	12344
15.6	6900	69.0	13110
25.0	8015	76.2	13735
33.0	8908	82.0	14199
41.0	9750	88.0	14634
48.0	10405	88.8	14654
55.0	11303		
6.47 mol %			
0.2	5072	48.4	10243
6.4	5790	56.4	10775
11.6	6442	63.4	11333
16.4	7030	68.9	11969
22.6	7643	77.2	12820
28.4	8242	84.4	13284
35.4	8957	90.6	13668
42.4	9668		
6.29 mol %			
0	5065	41.2	9695
5.6	5789	49.2	10395
11.4	6452	57.2	11408
19.8	7396	65.2	12123
25.4	8012	73.2	12900
33.2	8870		
4.31 mol %			
0.2	4856	42.4	8234
6.4	5247	49.4	8717
11.6	5726	57.4	9270
16.4	6161	65.4	9699
22.6	6618	73.4	10183
28.4	7088	81.4	10631
35.4	7689	89.4	10981
2.75 mol %			
0.2	3921	48.4	6882
5.6	4271	56.4	7286
11.6	4674	63.4	7589
16.4	4982	69.8	7816
24.4	5475	77.2	8180
32.4	6031	84.4	8414
40.4	6426	90.4	8627

Jones and Pearce, 1907

M	molecular conductivity
0°	
0.010	398.34
0.025	353.41
0.050	335.56
0.075	323.43
0.010	314.42
0.25	296.30
0.50	281.52
0.75	271.25
1.00	259.05
1.50	234.38
2.00	209.28

Gibson J. and G.E, 1909 - 1910

%	ϰ	%	ϰ
	18°		
60.78	3662.4	37.86	7057.4
58.45	4056.6	33.50	7355.6
54.45	4735.7	30.91	7418.4
50.86	5329.0	26.44	7300.1
46.43	6022.1		

Rabinovitch, 1921

%	ϰ	%	ϰ
	18°		
5	2085	70	2157
10	3915	80	1105
20	6527	85	980
30	7388	90	1075
40	6800	95	1045
50	5405	97	800
60	3726	99.4	85

Vinal and Craig, 1934

t	ϰ 15 %	20 %	25 %	30 %
30	6266	7616	8475	8842
25	5920	7163	7932	8236
20	5556	6684	7366	7628
18	5399	6489	7137	7380
15	5176	6202	6803	7013
10	4785	5693	6227	6398
5	4388	5203	5656	5790
0	3980	4699	5105	5181
- 5	3580	4200	5546	4587
-10	-	3720	4000	4016
-15	-	-	3484	3472
-20	-	-	2985	2950
-25	-	-	-	2445
-30	-	-	-	2000
-35	-	-	-	1613

t	ϰ 35 %	40 %	45 %
30	8772	8322	7622
25	8123	7686	7032
20	7496	7067	6456
18	7246	6816	6221
15	6878	6456	5855
10	6242	5848	5305
5	5580	5247	4748
0	5005	4660	4217
- 5	4400	4100	3700
-10	3850	3560	3230
-15	3320	3060	2750
-20	2800	2590	2320
-25	2310	2150	1920
-30	1890	1750	1570
-35	1520	1390	1270
-40	1190	1100	1010

Campbell, Kartzmark and al., 1953

%	ϰ	%	ϰ
	50°		
5.66	3058	55.74	7541
8.95	4901	60.45	6616
10.53	5714	61.04	6364
17.11	8377	67.65	4642
21.38	9767	72.62	3620
24.15	10338	75.41	3125
30.85	11117	78.70	2729
31.76	11234	82.95	2403
36.30	11133	87.13	2347
41.12	10725	89.99	2330
43.45	10258	92.8	2285
52.15	8538	96.2	1782
53.12	8169		
	75°		
5.66	3442	53.12	11143
8.95	5608	55.74	10035
10.53	6345	60.45	8915
17.11	9791	61.04	8670
21.38	11449	67.65	6594
24.15	12351	72.62	5337
30.85	13647	75.41	4764
31.76	13747	78.70	4290
36.30	13869	82.95	3877
37.53	13827	87.13	3699
41.12	13566	89.99	3558
43.45	13127	92.80	3456
52.15	11349	96.20	2641

Rosen, 1955

%	ϰ 15°	20°	25°
92.0	992	1165	1312
92.2	998	1163	1311
92.4	1003	1162	1309
92.6	1008	1161	1308
92.8	1012	1159	1307
93.0	1015	1157	1305
93.2	1016	1155	1302
93.4	1014	1153	1298
93.6	1011	1150	1294
93.8	1007	1146	1290
94.0	1002	1142	1285
94.2	996	1136	1279
94.4	988	1128	1271
94.6	981	1120	1262
94.8	972	1112	1252
95.0	962	1102	1239
95.2	952	1092	1227
95.4	942	1082	1214
95.6	932	1071	1199
95.8	921	1059	1184
96.0	910	1047	1168
96.2	898	1033	1152
96.4	885	1018	1135
96.6	871	1001	1117
96.8	856	980	1097
97.0	839	957	1074
97.2	818	931	1047
97.4	795	901	1018
97.6	771	870	988
97.8	742	837	957
98.0	712	802	926

Hetherington, Hub and al., 1955

m*	ϰ	m*	ϰ
	25°		
0	104.5	0.0376	129.8
0.0019	104.6	0.0528	149.0
0.0072	105.4	0.0846	194.1
0.0149	108.7	0.1220	245.2
0.0226	114.1	0.1608	295.0

* m = moles water in Kg acid .

Wasif, 1955 (fig.)

m (water)	t	ϰ
0	10.38	105
0.02	10.28	110
0.04	10.08	130

Tammann and Tofaute, 1929

t	$(D\lambda/\lambda_1)$. 100 * 0.001N	0.01 N	01 N	1.0N	5.0 N
			500 kg		
0	8.80	11.7	15.7	12.1	4.40
20	6.60	10.4	12.4	9.30	4.50
40	5.90	10.4	10.6	8.20	4.40
			1000 kg		
0	16.7	21.9	28.4	23.1	9.20
20	11.4	18.5	24.4	17.6	8.50
40	10.1	19.1	21.2	15.7	7.90
			1500 kg		
0	23.3	30.2	38.9	33.3	12.9
20	14.9	25.8	34.6	26.1	11.9
40	13.4	26.4	31.6	23.8	11.4
			2000 kg		
0	27.8	36.6	47.9	41.3	15.7
20	17.9	31.2	43.3	30.3	14.9
40	16.4	32.6	38.3	30.6	14.0
			2500 kg		
0	31.1	38.9	54.8	47.7	18.6
20	20.5	35.2	51.0	40.1	17.8
40	18.3	36.6	48.8	37.2	16.9
			3000 kg		
0	32.5	43.9	61.3	51.7	21.1
20	22.1	38.1	56.8	42.7	19.9
40	19.2	39.7	68.1	42.0	18.8

* $\lambda_1 = \lambda$ at 1 kg/cm^2

$D\lambda = \lambda p - \lambda_1$

Kowalski, 1891 - 1892

N	ϰ	Dϰ (in %) 100atm	200atm	300atm	500atm	$\tau.10^4$
36	692.00	-1.77	-	-2.89	-3.71	342
23.6	921.00	-1.26	-	-3.12	-4.91	369
15.0	4271.00	-	-	-	-3.03	-
10.6	5190.00	-0.44	-	-0.85	-0.97	192
7.5	6642.00	-	-	-	+0.22	-
3.5	5270.00	+1.42	-	+2.76	3.62	138
1.06	1820.00	2.19	+4.26	6.02	8.93	120
0.1	206.00	3.10	5.73	8.13	12.19	122
0.01	28.79	2.82	4.97	7.06	10.34	125
0.001	3.57	-	-	6.20	8.88	-

Gelbshtein, Shcheglova and Temkin, 1956

%	Ho 20°	40°	60°	80°
4	+ 0.30	+ 0.29	+ 0.28	+ 0.27
8	- 0.10	- 0.15	- 0.20	- 0.25
12	- 0.42	- 0.46	- 0.50	- 0.54
16	- 0.66	- 0.70	- 0.74	- 0.78
20	- 0.92	- 0.95	- 0.98	- 1.01
24	- 1.18	- 1.21	- 1.23	- 1.26
28	- 1.46	- 1.48	- 1.50	- 1.52
32	- 1.75	- 1.75	- 1.75	- 1.75
36	- 2.03	- 2.03	- 2.03	- 2.03
40	- 2.33	- 2.33	- 2.33	- 2.33
44	- 2.66	- 2.66	- 2.66	- 2.66
48	- 3.00	- 3.00	- 3.00	- 3.00
52	- 3.37	- 3.36	- 3.36	- 3.35
56	- 3.80	- 3.77	- 3.73	- 3.70
60	- 4.24	- 4.19	- 4.14	- 4.09
64	- 4.82	- 4.74	- 4.67	- 4.60
68	- 5.42	- 5.32	- 5.23	- 5.13
72	- 5.98	- 5.88	- 5.78	- 5.68
76	- 6.53	- 6.43	- 6.33	- 6.22
80	- 7.18	- 7.05	- 6.93	- 6.80
84	- 7.78	- 7.64	- 7.51	- 7.37
88	- 8.22	- 8.07	- 7.92	- 7.78
92	- 8.62	- 8.46	- 8.30	- 8.14
96	- 9.08	- 8.90	- 8.72	- 8.54
98	- 9.50	- 9.30	- 9.10	- 8.90
100	-10.65	-10.40	-10.15	- 9.90

Ho = acidity function .

Thermal constants

Person, 1851

mol %	U	mol %	U
100.0	0.3095	75.9	0.4534
84.7	0.4330	51.0	0.5851

Lundquist, 1869

d	t	U	heat conductivity (.10^4)
0.9992	40.8	1	933
1.112	43.7	0.847	900
1.195	44.5	0.781	868
1.361	40.5	0.621	754

Pfaundler, 1870

t final	U anhydre	U (1+1)	U (2+1)
	t initial = 22°		
60	-	-	0.442
70	-	0.444	0.446
80	0.355	0.447	0.450
90	0.356	0.450	0.455
100	0.358	0.454	0.459
110	0.359	0.458	0.462
120	0.360	0.461	0.466
130	0.362	0.465	0.470
140	0.364	0.469	0.474
150	0.365	0.472	0.478
160	0.367	0.475	0.482
170	0.370	0.479	-
180	-	0.482	-

Thomsen, 1870, 1871 and 1882

mol %	U	mol %	U
	18°		
16.5	0.545	2	0.918
9.1	0.700	1	0.956
4.8	0.821	0.5	0.977

Cattaneo, 1889

mol %	U	mol %	U
	at room temp.		
100	0.332	15.5	0.593
91	0.342	3.9	0.850
80	0.351	1.96	0.912
74.5	0.369	1.32	0.943
66.7	0.386	0.99	0.959
50	0.441		

Biron, 1899

%	U	%	U
	20°		
100	0.3352	31.21	0.7584
97.44	.3404	30.34	.7647
94.82	.3554	29.52	.7717
91.81	.3786	28.00	.7837
89.36	.4016	26.63	.7948
85.48	.4343	25.39	.8041
84.48	.4408	24.26	.8122
82.48	.4466	23.22	.8203
77.91	.4517	22.27	.8277
73.13	.4628	21.38	.8339
64.47	.5012	15.36	.8768
57.64	.5420	9.82	.9171
52.13	.5805	5.163	.9551
47.57	.6152	3,502	.9688
43.75	.6475	2.650	.9763
40.49	.6776	1.343	.9877
37.69	.7020	0.6759	.9937
35.25	.7231	0.3391	.99675
33.11	.7412		

Kremann and Kerschbaum, 1907

t	U	t	U
	50 mol %		
33.7	0.429	99.4	0.428
40.4	.424	107.4	.440
55.7	.416	134.0	.410
55.8	.426	173.0	.443
65.9	.435	179.5	.433
74.9	.428	207.1	.453

Hartung, 1915

mol %	U	mol %	U
	17.- 20°		
1.15	0.947	7.86	0.751
2.36	.909	10.7	.681
4.51	.842	14.2	.615
5.66	.807	17.1	.574

Pascal and Garnier, 1920

%	U	%	U
	20°		
0	1	64.0	0.507
10.0	0.916	78.44	.448
14.0	.903	85.0	.426
25.0	.801	93.25	.375
35.0	.725	96.0	.360
42.0	.670	100	.335

Agde and Holtmann, 1926

%	U	%	U
	25°		
1	0.990	31	0.750
2	.985	32	.744
3	.978	33	.736
4	.970	34	.727
5	.960	35	.720
6	.950	36	.713
7	.945	37	.705
8	.935	38	.695
9	.925	39	.689
10	.918	40	.680
11	.910	41	.673
12	.903	42	.665
13	.895	43	.658
14	.885	44	.650
15	.880	45	.643
16	.870	46	.635
17	.861	47	.628
18	.855	48	.621
19	.845	49	.614
20	.839	50	.606
21	.831	55	.570
22	.824	60	.535
23	.815	65	.504
24	.809	70	.473
25	.800	75	.448
26	.794	80	.424
27	.785	85	.404
28	.775	90	.380
29	.765	95	.356
30	.760	100	.335

Socolik, 1932

%	U	
	60°	80°
6.06	0.948	0.947
12.22	.901	.894
18.20	.852	-
24.20	.814	0.801
30.30	.765	.757
36.10	.715	-
40.00	.684	0.685
42.00	.669	.671
45.30	.640	.642
48.20	.626	.622
53.80	.584	.583
60.10	.542	.548
65.00	.516	.524
66.10	.510	-
72.20	.487	0.499
78.10	.468	-
82.20	.457	0.464
84.48	.448	.455
85.00	.446	.452
85.50	.444	.449
87.60	.432	.438
88.90	-	.429
92.50	0.391	.399
96.00	.364	.374
100.00	.351	.359

Randall and Taylor, 1941

m	U	m	U
	25°		
0.0444	0.99821	0.9941	1.01334
0.0704	.99857	1.2423	.01808
0.0713	.99854	1.4580	.02310
0.1748	.99921	1.4580	.02374
0.3722	1.00249	1.8771	.03374
0.5515	.00483	2.2300	.04252
0.8054	.00921		

Hornung, Brackett and Giauque, 1956

t	U (cal/mole)	t	U (cal/mole)
	(6+1) solid		
-258.39	1.93	-164.98	32.79
-255.88	3.02	-157.99	34.45
-253.31	3.88	-150.90	36.03
-252.01	5.13	-143.60	37.68
-248.91	6.60	-136.50	39.28
-245.43	8.24	-129.41	40.91
-239.06	10.09	-122.04	42.59
-236.74	11.97	-114.75	44.25
-224.39	15.81	-107.86	45.84
-218.19	18.08	-101.00	47.42
-212.24	20.20	- 93.82	49.07
-206.27	22.17	- 86.59	50.75
-199.88	24.25	- 80.14	52.27
-193.10	26.15	- 67.98	55.23
-186.21	27.77	- 61.87	58.51
-179.15	29.38	- 56.53	61.23
-172.02	31.11		
	(6+1) liquid		
- 59.42	115.84	- 9.51	124.75
- 51.91	117.54	- 0.46	125.76
- 43.82	119.29	+ 8.58	126.33
- 35.62	120.74	+ 17.70	126.85
- 27.23	122.22	+ 26.60	127.04
- 18.55	123.60		
	(6.5+1)		
- 42.98	126.89	- 7.02	133.57
- 36.47	128.65	+ 0.09	134.62
- 29.13	130.40	+ 7.73	135.24
- 22.78	131.50	+ 15.90	135.78
- 14.41	133.13	+ 23.45	136.34
	(8+1)		
- 59.99	143.00	- 12.08	160.41
- 52.34	146.47	- 3.26	161.92
- 44.35	149.98	+ 5.49	163.38
- 36.45	153.11	+ 14.03	163.89
- 28.64	155.91	+ 22.52	164.19
- 20.56	158.29		

Rümelin, 1907

%	t	Q mix (by mole water)
74.00	11.45	+2312
73.78	-	+2334
73.58	13.10	+2300
61.92	15.20	+1264
61.85	15.65	+1278
61.79	15.80	+1265
35.05	16.00	+ 221
35.00	16.25	+ 218.7
24.95	14.20	+ 70.8
24.90	14.35	+ 71.6
20.64	15.80	+ 33.79
20.60	15.80	+ 33.30
14.62	12.10	+ 10.89
14.52	12.50	+ 10.73

Brousted, 1910

mol %	Q mix (by mole acid)	mol %	Q mix (by mole acid)
90.9	806	10.0	15580
83.3	1586	6.7	16660
76.9	2331	1.0	17600
71.4	3054	0.74	17640
66.7	3750	0.50	17760
62.5	4418	0.37	17900
58.8	5054	0.25	18120
55.6	5654	0.20	18230
52.6	6212	0.16	18360
50.0	6720	0.13	18500
40.0	8790	0.08	18820
33.3	10020	0.063	19040
25.0	11640	0.040	19400
20.0	12830	0.032	19660
16.7	13710	0.024	19900
14.3	14370	0.016	20150
12.5	14890	0.008	20430
11.1	15260		

Pickering, 1890

%	Q dil. integral (100 g water)	%	Q dil. integral (100 g water)
100	21563	22.279	941
99.473	21215	18.492	748
97.030	19627	10.003	381.5
94.233	17885	8.585	330-313
91.592	16280	5.215	188.5-182.9
89.095	14840	4.377	161.0-152.7
84.488	12460	4.021	147.7-138.5
78.407	9995	2.664	93.8
73.142	8363	1.346	41.55
64.483	6193	1.057	30.00
57.656	4828	0.657	17.54
52.137	3918	0.362	8.00
49.757	3552	0.340	7.37
47.582	3252	0.104	1.085
37.701	2088	0.068	0.403
29.526	1399		

Vrevski and Nicolski, 1927

%	Q vap (cal/g)	%	Q vap (cal/g)
	79.3°		
17.13	553.6	42.72	576.0
23.05	556.9	49.12	588.1
28.15	558.8	56.98	615.0
36.85	566.6		

Beetz, 1879

d^{20}	relative heat conductivity 8–14°	relative heat conductivity 28–36°
1.083	409	615
1.496	404	524

Jäger, 1891

%	relative heat conductivity
0	100
30	85.8
60	72.2
90	58.4

Water + sulfamic acid (H_3O_3NS)

Schmelzle and Westfall, 1944

N	d	η (water=1)	N	d	η (water=1)
		25°			
0.1303	1.0034	1.0161	0.6736	1.0319	1.0644
.1788	.0064	.0163	.7331	.0331	.0707
.2579	.0103	.0280	.9693	.0466	.0902
.3773	.0166	.0349	1.1951	.0587	.1145
.4676	.0214	.0450	1.6445	.0811	.1668
.4974	.0229	.0551	2.0724	.1025	.2214

LXVIII. WATER + AMMONIUM SALTS

Water + Ammonium fluoride (NH_4F)

Yatlov and Polyakova, 1945

%	f.t.	%	f.t.
5.0	-4.1	41.0	-16.8 E
10.0	8.2	41.81	0
15.0	12.1	42.55	+10
20.0	14.7	45.25	20
25.0	20.7	47.05	30
30.0	24.9	49.81	45
32.3	26.5 E	52.62	60
39.2	-19.0 (1+1)	54.05	80

Jdanov and Sarkazov, 1955

%	f.t.
41.62	0
45.31	25
52.01	40

Zaromb and Brill, 1954 (fig.) and 1956

%	f.t.
5.0	- 4.1
10.0	- 8.2
15.0	-12.1
20.0	-14.7
30.0	-24.9
32.3	-26.5 E ice + (1+1)

% L	% C
0.1	0.002
5	0.5
10	1.5

Grufki, 1913

mol%	wt%	d
	18°	
0	0	0.99967
0.5122	1.88	1.00816
1.050	3.83	.01708
2.110	7.56	.03260
4.121	14.45	.05626

Guillaume, 1946

%	d
20°	
4.48	1.0292
22.50	1.0785

Grufki, 1913

mol%	%	n Hα	n Hβ	n Hγ
		18°		
0	0	1.33141	1.33736	1.34059
0.5122	1.88	.33414	.34013	.34333
1.050	3.83	.33656	.34258	.34580
2.110	7.56	.34069	.34678	.34999
4.121	14.45	.34700	.35318	.35650

Guillaume, 1946

%	n 5780 Å	(α)* magn.10^6
	20°	
4.48	1.3399	3.957
22.5	1.3537	3.809

* in radians, gauss, centim.

Water + Ammonium acid fluoride (H_5F_2N)

Yatlov and Polyakova, 1945

%	f.t.	%	f.t.
5.0	-3.4	61.00	+60
10.0	-6.5	74.53	80
15.0	-9.4	85.55	100
20.0	-12.6	86.0	99.5
23.6	-14.8 E	89.0	104.6
28.45	0	92.0	110.5
31.96	+10	94.0	114.0
37.56	20	100.0	126.1
50.05	40		

Jdanov and Sarkazov, 1954

%	f.t	%	f.t
32.87	0	53.03	40
43.73	25	54.15	50

Water + Ammonium chloride (NH_4Cl)

Heterogeneous equilibria

Tammann, 1885

t	p 0%	5.67%	19.60%	22.20%	32.43%
35.43	43.2	-	37.4	36.4	-
40.59	57.1	-	49.3	48.2	43.0
45.21	72.7	-	62.2	60.5	54.7
51.51	99.7	-	85.6	83.0	74.6
70.49	238.8	-	205.3	198.8	177.8
76.27	305.0	295.7	262.9	254.8	227.6
80.74	366.3	354.2	315.6	305.1	272.2
90.82	542.5	525.3	467.7	452.7	402.6
93.68	581.8	564.3	502.1	485.6	-
96.63	673.0	653.5	581.6	562.8	-
100.00	768.1	744.4	664.9	642.3	-

%	p	%	p
	100°		
6.08	731.4	27.43	601.7
9.07	716.7	30.54	575.4
14.36	687.6	34.07	552.8
17.25	667.6	38.37	515.0
21.97	635.6		

Edgar and Swan, 1922

t	p	t	p
	sat.sol.		
19	12.95	25	18.84
20	13.90	26	19.91
21	14.83	27	21.03
23	16.79	28	22.20
24	17.80	29	23.42
		30	24.66

Mondain Monval, 1923

16.7% 15° p= 6.44mm

Adams and Merz, 1929

t	p	t	p
	sat.sol.		
10	7.27	30	24.61
15	10.15	40	40.81
20	13.92	50	65.92
25	18.12		

Pearce and Pumplein, 1937

M	p	M	p
	25°		
0.0	23.752	2.5	21.841
.1	23.673	3.0	21.462
.2	23.595	3.5	21.084
.4	23.438	4.0	20.709
.6	23.281	4.5	20.338
.8	23.125	5.0	19.974
1.0	22.970	6.0	19.250
1.5	22.588	7.38	18.281
2.0	22.215	satd.	

Legrand, 1835

%	b.t.	%	b.t.
7.23	101	34.85	109
12.20	102	37.46	110
16.46	103	39.90	111
20.13	104	42.30	112
23.38	105	44.60	113
26.31	106	46.84	114
29.23	107	47.06	114.2 satd.
32.11	108		

De Heen, 1881

%	b.t.
10.62	103.5
17.42	105.0

Gerlach, 1886

%	b.t.	%	b.t.
0	100	31.03	108
6.10	101	33.59	109
11.34	102	35.98	110
15.97	103	38.23	111
19.80	104	40.41	112
22.90	105	42.60	113
25.71	106	44.64	114
28.37	107	46.55	114.8

Buchanan, 1899

%	b.t	%	b t
	742.0-743.3 mm		
44.00	113.79	21.52	104 16
44.22	113.45	19.84	103.66
39.14	111.13	18.06	103.14
35.04	109.11	16.30	102.66
30.11	107.13	14.33	102.16
27.41	106.13	12.22	101.65
24.52	105.14	0	99.33
	620.0 mm		
44.14	107.89	26.66	100.71
41.98	106.84	23.59	99.75
37.25	104.82	20.20	98.74
34.82	103.81	16.40	97.73
32.28	102.80	0	94.40
30.14	101.79		
	619.9 mm		
44.67	107.74	34.11	103.31
44.28	107.74	33.79	103.20
44.00	107.50	32.05	102.79
43.79	107.50	31.22	102.19
41.51	106.34	28.54	101.28
40.02	105.73	28.34	101.18
39.09	105.33	25.34	100.17
36.62	104.37	22.05	99.16
35.46	104.22	0	94.26
	550.35 mm		
60.54	104.16	31.11	99.09
42.88	103.97	28.31	98.08
38.77	102.13	25.32	97.07
36.27	101.12	21.99	96.06
33.73	100.10	0	91.20
	non satd.		
22.71	103.95	5.96	100.51
18.47	103.55	4.94	100.31
14.10	102.54	3.96	100.20
13.00	102.03	3.70	100.10
10.93	101.52	3.16	100.00
9.04	101.02	2.57	99.90
8.11	100.82	0	99.46
7.04	100.71		

Johnston, 1906

%	b.t.
34.49	108.890
36.34	109.292
38.49	109.517
40.63	109.812
43.18	109.952

Johnston, 1907

N	b.t.	%	b.t.
0.141	100.128	9.60	101.662
.412	100.363	12.11	102.171
.793	100.573	14.70	102.750
.825	100.760	16.98	103.344
1.055	100.892	19.94	104.160
1.255	101.076	22.03	104.880
1.531	101.329	25.37	105.813
		27.48	106.598
		30.12	107.564
		32.30	108.449

Jablezynski and Kon, 1923

m	b.t.	m	b.t.
3.818	100.357	12.309	101.128
6.281	100.578	14.590	101.338
8.255	100.757	16.731	101.535
10.288	100.942	18.970	101.749

Rüdorff, 1861

%	f.t.	%	f.t.
0.99	-0.65	7.41	-5.2
1.96	-1.35	9.09	-6.5
3.85	-2.6	10.71	-7.8
5.66	-3.9		

Mulder, 1866

%	f.t.	%	f.t.
22.90	0	33.20	49
23.61	4.25	34.30	55.3
24.58	8.50	39.69	80
26.09	15.50	43.08	98.4
26.42	16.50	46.41	115
27.90	25	46.61	115.75 b.t.
29.18	29.75		

Nordenskjold, 1869

%	f.t.	%	f.t.
22.90	0	29.68	31.6
24.35	6.2	36.67	64.9
25.48	10.8	40.19	90.6

de Coppet, 1872

%	f.t.	%	f.t.
1.96	-1.3	13.79	-10.9
9.09	-6.65	15.25	-12.2
10.71	-8.0	16.67	-13.7
12.28	-9.45		

Guthrie, 1876

%	f.t.	%	f.t.
1	-0.4	18	-15.0
3	1.6	19	15.8
5	3.1	19.27	16.0 E
7	4.6	20	15
10	7.1	22	-5
13	9.9	23.2	0
15	12.0	25	+8
16	13.0	30	+32
17	-14.0		

Mohr, 1888

mol%	f.t.
11.73	25
12.88	35
14.06	45

Meerburg, 1903

%	f.t.	%	f.t.
0.7	- 0.45	18.9	-15.40
1.9	- 1.25	19.5 E	-15.0 E
2.7	- 1.70	19.7	-15.0
4.6	- 3.05	20.0	-12.2
6.6	- 4.45	20.3	-10.9
9.2	- 6.40	21.1	- 7.4
11.4	- 8.25	21.7	- 5.6
13.1	- 9.70	22.3	- 2.3
15.3	-11.90	22.6	- 1.1
16.7	-13.25	22.7	0
18.1	-14.70		

Jones, 1904; Jones and Getman, 1904

M	f.t.
1.0	-3.703
2.0	-7.550
3.0	-11.700

Biltz and Marcus, 1911

%	f.t.
23.81	3.5
27.80	25
33.15	50

Scheffer, 1915

%	f.t.	%	f.t.	
55.80	162.9	59.93	184.55	tr.t.
56.31	165.65	60.34	187.3	
57.07	169.5	60.33	187.9	
57.41	172.0	60.54	189.1	
58.33	176.1	60.64	190.15	
58.55	177.2	60.83	191.7	
58.80	178.55	61.23	194.7	
58.85	178.95	61.74	199.1	
59.34	181.05	61.92	200.5	
59.50	181.75	62.51	205.0	
59.39	182.2			
59.67	183.05			

Rodebusch, 1918

%	f.t.	%	f.t.
8.49	-5.73	16.63	-12.44
10.92	7.63	16.62	12.60
11.15	7.80	18.30	14.03
12.09	8.60	19.43	15.10
14.45	10.58	19.68	-15.36 E
15.83	-11.80		

Neumann and Domke, 1928

c	f.t.
29.42	20
31.57	30
33.78	40

Benrath, Gjedebo and al., 1937

%	f.t.	%	f.t.
48.9	129	67.7	246
51.1	142	70.4	267
54.6	164	74.5	294
59.1	191	77.8	318
62.4	211	80.2	339
66.2	236	85.6	377
66.7	241	90.8	417

Polosin, 1946

%	f.t.	%	f.t.
0	0	19.0	-14.5
2.9	-1.6	20.6	-9.4
5.8	3.6	22.7	+0.4
8.4	5.3	24.8	9.4
10.9	7.5	26.9	19.9
13.5	9.5	28.8	28.5
15.9	11.8	30.7	38.5
18.21	-13.9	32.0	43.1

Stackelberg, 1896

P	%	f.t.
1	27.2	18.5
500	25.8	18.5

Denecke, 1919

P Kg		f.t.
1	ice I	-15.8
350		-17.5
1190		-22.5
2028		-32.4
2215	tr.t. iceI-iceIII	-34.4
2410	ice III	-32.5
2520		-31.2
2800		-29.4
2890		-29.1
3130		-28.0
2159	tr.t.iceI iceIII	-66

Wishaw and Stokes, 1953

m	osmotic coeff.	m	osmotic coeff.
0.1	0.927	1.8	0.906
.2	.913	2.0	.909
.3	.906	2.5	.918
.4	.901	3.0	.926
.5	.899	3.5	.936
.6	.897	4.0	.945
.7	.896	4.5	.953
.8	.896	5.0	.958
.9	.896	5.5	.963
1.0	.897	6.0	.969
.2	.898	6.5	.973
.4	.900	7.0	.976
.6	.903	7.39 (satd.)	.977

m_1	m_2	m_1	m_3
0.2026	0.2029	5.043	4.268
0.3834	0.3830	5.244	4.398
0.7141	0.7134	5.352	4.472
1.067	1.065	5.943	4.871
1.087	1.085	6.580	5.278
1.407	1.405	6.659	5.323
1.589	1.586	6.919	5.485
2.055	2.050	7.209	5.661
2.563	2.544	7.328	5.732
2.673	2.655	7.390	5.768
2.763	2.739	(satd.)	
3.028	2.996		
3.880	3.813		
4.647	4.626		

m_1 = NH_4Cl m_2 = KCl m_3 = NaCl

Hall, Wishaw and Stokes, 1953

M	D	M	D
	25°		
0.0698	1.857	0.8626	1.902
0.0760	1.848	1.4050	1.976
0.1042	1.838	1.8759	2.030
0.2258	1.837	2.8182	2.151
0.3768	1.848	3.640	2.210
0.5121	1.865	4.558	2.258
0.6756	1.883	5.285	2.264

Properties of phases . Density .

Bischof, 1850

%	d	%	d
	18.75°		
2	1.0049	16	1.0460
4	.0101	18	.0515
6	.0172	20	.0571
8	.0232	24	.0681
10	.0291	26	.0736
12	.0348	27	.0763
14	.0405		

Schiff, 1858 and 1859

%	d	%	d	%	d
		19°			
0	0.9984	11	1.0360	21	1.0589
1	1.0013	12	.0335	22	.0616
2	.0042	13	.0364	23	.0643
3	.0071	14	.0393	24	.0671
4	.0100	15	.0422	25	.0697
5	.0129	16	.0451	26	.0724
6	.0158	17	.0479	27	.0751
7	.0187	18	.0506	28	.0777
8	.0217	19	.0534	29	.0803
9	.0247	20	.0562	30	.0829
10	.0277				

Gerlach, 1859

%	d	%	d
	15°		
0	0.99913	14	1.04235
1	1.00229	15	.04433
2	.00545	16	.04714
3	.00861	17	.04995
4	.01176	18	.05276
5	.01492	19	.05656
6	.01792	20	.05837
7	.02092	21	.06112
8	.02392	22	.06387
9	.02692	23	.06761
10	.02992	24	.06936
11	.03280	25	.07211
12	.03568	26	.07282
13	.03857		

Buliginsky, 1868

%	d	%	d
	15°		
0	0.99918	20.449	1.0587
5.247	1.0156	25.242	1.0721
13.645	1.0406		

van der Willigen, 1869

%	d	%	d
	26.30°		
9.72	1.02597	19.58	1.05364
11.79	.03202	19.68	.05399
14.51	.04004	24.83	.06757

Thomsen, 1871

mol%	d	mol%	d
	18°		
0	0.9986	3.9	1.0314
0.5	1.0044	9.0	.0664
0.9	.0086	11.7	.0718
1.7	.0167		

Kohlrausch and Grotrian, 1875

%	d	%	d
	18°		
5	1.0142	20	1.0570
10	1.0289	25	1.0724
15	1.0430		

Schumann, 1877

%	d	%	d
	15°		
0	0.9991	17.58	1.0516
2.29	1.0063	21.58	.0627
11.62	1.0346	26.30	.0757

Grotrian, 1877

%	t	d	t	d	t	d
4.86	10.26	1.0153	19.20	1.0136	30.93	1.0106
9.64	10.34	.0300	18.99	.0281	28.84	.0257
14.48	10.55	.0443	18.80	.0421	29.96	.0390
19.29	10.65	.0582	17.42	.0561	27.59	.0534

Kohlrausch, 1879

%	d	%	d
	18°		
5	1.0142	20	1.0571
10	1.0289	25	1.0710
15	1.0430		

Volkmann, 1882

%	d	%	d
16°		15-16°	
0	0.9990	13.02	1.0388
9.67	1.0281	26.01	1.0750
18.31	.0535		
26.44	.0758		

Bender, 1883

M	d	M	d
	15°		
0	0.9991	3	1.0451
1	1.0157	4	.0587
2	.0308	5	.0728

Traube, 1885

%	d
15°	
0	0.9991
9.77	1.0295
18.94	1.0562

Bender, 1887

M	d^{15}	$\tau.10^6$ 15-20°	$\tau.10^6$ 20-25°
1	1.0157	1096	1295
2	.0308	1258	1415
3	.04511	1386	1510
4	.0587	1486	1586
5	.0728	1574	1647

Charpy, 1893

0°

%	d	%	d
0	0.9999	14.3232	1.05156
3.4802	1.0113	17.6641	.0561
7.2572	.0234	21.0299	.0665
11.0112	.0351		

Brückner, 1891

15°

M	d	M	d
0.0	0.9992	2.5	1.0376
0.5	1.0073	3	.0445
0.75	.0118	3.5	.0520
1	.0153	4	.0582
1.5	.0231	4.5	.0648
2	.0306	5	.0712

Schiff and Monsacchi, 1896

19°

%	d	%	d
0	0.9984	20	1.0579
5	1.0145	25	.0714
10	.0293	30	.0846
15	.0498		

Grabowsky, 1904

%	d 10°	d 18°	d 30°
0	0.999731	0.99863	0.99567
9.11	1.0288	1.0263	1.0220
18.47	.0555	.0528	.0487
24.71	.0732	.0702	.0657

Chéneveau, 1907

19°

%	d	%	d
0	0.9984	14.94	1.0427
5.13	1.0146	19.68	.0563
10.10	.0292	24.25	.0695
12.54	.0362		
20.31	1.0605	(9.8°)	

Getman, 1908

25°

M	d	M	d
0	0.9991	2.2185	1.0331
0.4437	1.0071	2.6622	.0394
0.8874	.0138	3.1059	.0458
1.3311	.0204	3.5496	.0516
1.7748	.0268	4.4370	.0630

Schneider, 1910

18°

M	d	M	d
0	0.99862	1	1.0150
0.1	1.00032	2	.0298
0.2	.00215	4	.0579
0.5	.00711		

Herz, 1914 and 1917

25°

N	d
0	0.9971
1.268	1.0164
2.536	.0346
3.803	.0520
5.071	.0680

Manchot, Jahrstorfer and Zepter, 1924

25°

c	d	c	d
5.7244	1.0146	12.037	1.0312
5.818	.0141	23.005	.0594
11.631	.0294	23.258	.0600

De Block, 1925

%	d	%	d
	11.5°		
0	0.9996	11.8	1.0367
2.65	1.0084	18.9	.0565
5.27	1.0162	24.2	.0715

Jessen-Hansen, 1927

%	d	%	d
	18°		
0.999	1.00184	15.22	1.04309
1.000	.00179	17.31	.04980
1.96	.00489	19.33	.05538
2.91	.00789	21.24	.06072
5.65	.01437	23.06	.06571
8.25	.02388	24.78	.07026
10.70	.03101	24.80	.07027
13.02	.03768		

Geffcken, 1929

m	d	m	d
	25°		
0	0.99707	4.5897	1.05409
1.1619	1.01499	6.484	1.07043
2.2680	1.02938		

Shibata and Hölemann, 1931

m	d	m	d	m	d
25°		35°		45°	
0	0.99707	0	0.99406	0	0.99024
1.8774	1.02453	1.5881	1.01746	1.8916	1.01751
3.6504	.04482	1.9538	.02213	2.5178	.02505
4.6914	.05509	2.7594	.03170	4.1464	.04232
6.7500	.07260	4.7845	.05233	6.7529	.06482
		6.7495	.06878		

Andersen and Asmussen, 1932

%	d
0°	
12.54	1.0407
19.54	1.0596

Spacu and Popper, 1934

%	d	%	d
	20°		
0	0.99823	16.362	1.046761
10.685	1.03066	21.358	.060480
16.043	1.04588	26.467	.074492

Pearce and Pumplen, 1937

M	d	M	d
	25°		
0.0	0.997074	1.0	1.012644
.1	0.997890	2.0	.026015
.2	1.000451	3.0	.037810
.4	.003665	4.0	.048315
.6	.006759	5.0	.057796
.8	.009753	6.0	.066455
		7.38 (satd.)	.077299

Guillaume, 1946

%	d
20°	
6.9	1.0215
19.9	1.0584

De Heen, 1881

t	rel.vol.	t	rel.vol.
17.42%		10.62%	
10.00	1.000000	10.00	1.000000
15.20	.001378	14.60	.000975
20.42	.002873	19.75	.002279
30.52	.006092	27.32	.004433
39.04	.009150	35.51	.007110
51.41	.014047	43.74	.010063
59.01	.017385	50.92	.013054
66.08	.020653	60.32	.017395
73.33	.024237	70.68	.022757

Schumann, 1877

%	π	%	π
	15°		
2.29	45.9	17.58	41.1
11.62	41.5	21.58	36.5

Schmidt, 1859

%	t	π
5.9	18.0	43.6
13.0	18.0	40.5
22.6	17.3	37.0

Braun, 1887

0 %		22 %	
t	π (apparent)	t	π (apparent)
0.6	33.47	1.0	33.80
17.8	32.25	22.1	32.40

Busz, 1938

%	sound velocity m/sec.	d
	14-16°	
0	1480	1.0
5.2	1520	.02
12	1570	.04
24	1660	.07

Viscosity and surface tension

Grotrian, 1877

t	η	t	η
4.86 %		9.64 %	
10.66	1235	9.85	1238
19.71	1015	19.36	1012
29.75	805	29.80	811
14.48 %		19.29 %	
10.89	1175	9.71	1215
20.34	966	20.04	988
31.35	794	30.22	829

Brückner, 1891

M	η 15°	η 20°	M	η 15°	η 20°
0.0	1143.9	1008.6	2.5	1086.2	978.9
0.5	1126.7	999.2	3	1082.6	979.4
0.75	1118.3	994.0	3.5	1081.0	981.3
1	1112.9	992.4	4	1086.1	989.7
1.5	1100.0	984.5	4.5	1090.6	996.7
2	1091.3	980.6	5	1106.5	1010.8

Getman, 1908

M	η	M	η
		25°	
0	895	2.2185	878
0.4437	889	2.6622	887
0.8874	885	3.1059	897
1.3311	882	3.5496	904
1.7748	880	4.4370	925

Herz, 1914 and 1917

N	η (water=1)	N	η (water=1)
		25°	
0	1	3.803	1.014
1.268	0.998	5.071	1.037
2.536	1.002		

Schneider, 1910

M	η	M	η
		18°	
0.1	996.1	1	976.6
0.2	994.4	2	962.6
0.5	986.7	4	967.7

Tammann and Rabe, 1928

%	η 0°	η 10°	η 30°	η 75°
5.08	1678.9	1255.4	806.7	398.8
9.66	1601.3	1225.8	809.4	414.9
13.83	1551.6	1202.9	811.6	428.0
17.62	1511.9	1202.2	827.4	445.5
21.10	1498.5	1209.3	839.9	454.2

Buliginsky, 1868

%	σ	%	σ
		15°	
0	73.26	20.449	79.07
5.247	74.76	25.242	80.63
13.645	77.04		

Volkmann, 1882

%	σ	%	σ
		16°	
0	73.1	18.31	78.6
9.67	75.9	26.44	81.0
		15-16°	
13.02	77.0	26.01	81.0

Traube, 1885

%	σ
15°	
0	73.26
9.77	74.79
18.94	77.51

Ochsé, 1890

t			a^2		
c	0	5	10	15	20
0	80.7	-	-	-	-
4	77.5	-	-	66.7	65.1
4.5	-	68.2	-	-	-
8	75.4	-	66.0(7.5°)	-	-
15	72.9	68.7	64.5	65.7	64.2
25	70.2	63.2	62.6	64.7	63.4
35	-	60.7	60.9	63.5	62.7
45	64.2(40°)	58.5	59.0	62.6	62.1
55	60.3	56.5	57.1	62.0	61.2

Grabowsky, 1904

%	σ	
	10°	30°
0	74.00	71.02
9.11	76.19	73.16
18.47	78.90	76.17
24.71	81.01	78.01

Forch, 1905

M	t	σ	M	t	σ
0	15.0	73.26	3.140	16.3	81.13
0.584	16.0	77.37	3.925	16.8	82.31
1.621	15.9	78.95	4.864	16.3	85.78
2.432	15.9	80.13			

De Block, 1925

%	σ	%	σ
11.5°			
0	73.78	11.8	77.35
2.65	74.71	18.9	79.39
5.27	75.47	24.2	81.48

Optical and electrical properties

van der Willigen, 1869

spectrum lines	n					
	9.72%	11.79%	14.51%	19.58%	19.68%	24.83%
	26.30°					
A	1.34669	1.35045	1.35559	1.36468	1.36500	1.37446
a	.34752	.35137	.35647	.36565	.36594	.37546
B	.34825	.35212	.35726	.36646	.36670	.37627
C	.34898	.35292	.35805	.36727	.36759	.37714
D	.35098	.35495	.36015	.36948	.36980	.37947
E	.35351	.35751	.36278	.37227	.37261	.38235
b	.35397	.35800	.36326	.37279	.37313	.38291
F	.35563	.35969	.36502	.37462	.37497	.38484
G	.35776	.36191	.36733	.37705	.37733	.38742
G	.35952	.36368	.36916	.37898	.37932	.38950
H	.36028	.36443	.36997	.37978	.38013	.39036
H	.36149	.36566	.37122	.38110	.38147	.39182
H	.36291	.36715	.37273	.38266	.38300	.39347

Börner, 1869

t	$n_{H\alpha}$	t	$n_{H\beta}$	t	$n_{H\gamma}$
10%					
41.1	1.345801	39.3	1.352606	41.3	1.355926
35.9	.346519	34.9	.353213	34.35	.356889
31.3	.347164	31.1	.353749	30.55	.357424
26.5	.347720	26.4	.354392	26.1	.357958
21.95	.348419	22.2	.354892	22.1	.358528
20%					
38.9	1.360236	38.2	1.367493	37.1	1.371613
33.1	.361090	33.8	.368166	24.9	.371825
28.7	.361694	28.1	.368838	28.5	.372707
25.55	.362067	25.3	.369192	25.1	.373060
21.8	.362458	21.8	.369599	21.7	.373553
30%					
39.5	1.372319	40.1	1.379801	41.1	1.383891
34.6	.372919	35.5	.380451	36.7	.384483
30.7	.373483	30.9	.381012	30.7	.385218
26.5	.374012	26.5	.381609	26.5	.385795

Jones, 1904; Jones and Getman, 1904

M	n_D
0°	
0	1.33395
0.2	.32750
0.5	.33045
1.0	.33559
2.0	.34536
3.0	.35508

Cheneveau, 1907

%	n_D	%	n_D
	19°		
0	1.3331	14.94	1.3611
5.13	.3427	19.68	.3701
10.10	.3521	24.25	.3792
12.54	.3566		

%	n C	n D	n Tl	n F	n G'
20.31	1.37049	1.37276	1.37472	1.37788	1.38200

Geffcken, 1929

m	n_{He}	m	n_{He}
	25°		
0	1.332590	4.5897	1.370008
1.1619	.343862	6.484	.381425
2.2680	.353248		

Shibata and Hölemann, 1931

m	n_{He}	m	n_{He}	m	n_{He}
25.0°		35.0°		45.0°	
0	1.33270	0	1.33149	0	1.33000
1.8774	.35015	1.5881	.34646	1.8916	.34752
3.6504	.36379	1.9538	.34952	2.5178	.35258
4.6914	.37082	2.7594	.35589	4.1464	.36440
6.7500	.38308	4.7845	.37005	6.7529	.38021
		6.7495	.38168		

Spacu and Popper, 1934

%	n_{He}	%	n_{He}
	20°		
0	1.3324865	16.362	1.363615
10.685	.352886	21.358	.373041
16.043	.363022	26.467	.382827

Guillaume, 1946

%	$n_{5780\,Å}$
20°	
6.9	1.3472
19.9	1.3713

Andersen and Asmussen, 1932

%	$(\alpha)^{mol}_{magn.}$
12.54	6.31
19.54	6.51

Guillaume, 1946

%	$*(\alpha)^{5780\,Å}_{magn.} \cdot 10^6$
20°	
0	3.974
6.9	4.282
19.9	4.830

* in radians, gauss, centim.

Andersen and Asmussen, 1932

%	Verdet's constant (5460 Å)
0°	
12.54	0.0183
19.54	0.0200

Okazaki, 1933

%	Verdet's constant (3441 Å)
28°	
3.06	0.04622
5.31	.04756
6.38	.04817
9.52	.05099
13.34	.05370
18.66	.05733
22.57	.06019

Mc Clung and Mc Intosh, 1902

d	X-ray absorption (in %)
room temp.	
1.000	56.7
1.004	57.2
1.017	60.8
1.033	68.3
1.062	76.4

Kohlrausch and Grotrian, 1875

%	κ 0°	κ 18°
5	608	913
10	1210	1765
15	1809	2571
20	2393	3345
25	-	4002

Kohlrausch, 1879

%	κ	τ.10⁴
	18°	
5	913	199
10	1766	187
15	2570	172
20	3345	162
25	4000	155

Bender, 1887

M	κ
	18°
0.5	478
1	928
1.5	1346
2	1764

Dennhardt, 1899

M	λ 0°	λ 10°	λ 18°
0.5	65.2	85.8	99.4
1	61.8	77.8	93.4
2	60.2	74.0	89.0
3	59.5	72.7	86.1
4	59.0	71.8	84.5

Johnston, 1907

N	λ	N	λ
	100°		
10	163.9	0.10	307.7
4	188.2	.05	326.5
3	202.7	.025	341.7
2	222.0	.012	350.0
1	235.6	.005	365.6
0.5	259.3	.001	382.0
0.25	286.0	.0005	380.0

Heat constants.

Schüller, 1869

%	U
9.09	0.9100
16.67	.8403
23.08	.7946
27.01	.7644

Thomsen, 1871

mol%	U	mol%	U
	18°		
0.5	0.982	3.9	0.881
0.9	.966	9.0	.778
1.7	.937	11.7	.760

Winkelmann, 1873

%	U
3.03	0.9645
5.71	.9341
9.98	.8997
14.99	.8574
25.00	.8003

Marignac, 1876

%	U
	20-52°
2.90	0.9670
5.60	.9382
10.61	.8850
19.21	.8134

Faasch, 1911

mol/L water	U
	18°
0.465	0.971
0.971	.946
1.962	.900
3.950	.805

Mishchenko and Ponomareva, 1956

m	U	m	U
	25°		
0.3061	0.9814	3.0005	0.8574
.5035	.9672	4.7890	.8021
.9981	.9413	7.0323	.7534
1.9988	.8955		
	50°		
0.2049	0.9859	3.5869	0.8428
.3079	.9800	5.0476	.8009
.9751	.9458	7.0116	.7575
2.0126	.8980	7.0173	.7182
	75°		
0.1921	0.9896	4.3083	0.8238
0.4920	.9764	6.0441	.7818
1.0033	.9500	8.3118	.7369
2.2545	.8903	11.4398	.6934
3.0315	.8627		

Winkelmann, 1873

%	Q diss.
	50°
3.0	-55.4
5.7	-56.0
10	-56.3
15	-56.5
25	-57.6

Lehtonen, 1922

M	Q diss. cal/g	M	Q diss. cal/g
	0°		
0.0625	-86.884	1.0000	-85.392
.1250	-86.604	2.0000	-82.913
.2500	-86.409	4.0000	-76.698
.5000	-85.986		

Mondain-Monval, 1925

t	Q diss.
0.87 mol %	
0	-4060
18	-3840
27.7	-3680

mol % initial	mol % final	t	Q dil. (by mole salt)
9.1	0.34	0.5	-414
10.8	0.45	18	-155

Q by addition to a large quantity of a saturated solution .

addition of	Q 0°	Q 18°
one mole water.	-28	-15
an amount of water necessary to dissolve one mole salt.	-278	-123

t	Q diss. (limit)
0	-3300
19	-3480
27.6	-3640

Water + Ammonium bromide (NH_4Br)

Heterogeneous equilibria

Tammann, 1885

t	p 0%	14.52%	28.87%	55.60%	60.82%
42.42	62.9	60.3	56.9	51.3	50.1
49.73	91.3	87.1	82.2	74.6	72.8
55.66	121.9	116.1	110.2	99.4	96.7
62.41	166.9	159.3	151.2	136.6	133.5
68.83	222.2	212.7	201.3	183.4	178.1
80.48	362.4	345.7	328.0	296.4	290.3
86.72	463.9	442.6	420.0	378.6	373.8
91.18	550.0	525.7	498.4	449.7	439.5
100.65	777.8	741.0	702.9	635.1	622.0

100°

%	p	%	p
5.61	745.7	28.40	659.6
9.82	734.1	33.80	633.4
16.41	713.8	40.62	589.3
18.73	701.4	51.27	517.3
21.76	689.5	53.87	496.1

Johnston, 1906

%	b.t.	%	b.t.
44.57	107.66	59.22	114.78
50.72	110.36	64.05	115.66
56.65	111.76		

Johnston, 1907

%	b.t.	%	b.t.
2.735	100.275	20.59	102.436
5.427	100.542	24.22	102.968
8.11	100.814	27.28	103.511
10.45	101.076	31.8	104.431
12.67	101.345	34.8	105.003
14.67	101.596	39.8	106.224
16.76	101.861	41.8	106.654

Jablczynski and Kon, 1923

m	b.t.	m	b.t.
0.4471	100.414	1.3857	101.308
.6768	100.632	.6406	101.556
.9175	100.854	.9874	101.899
1.1568	101.085		

Eder, 1880

%	f.t.
41.84	16
44.84	30
48.54	50
56.18	100

Smith and Eastlack, 1916

%	f.t.	%	f.t.
37.34	0	64.61	132.0
39.13	5	64.69	132.3
40.48	10	65.15	135.0
41.76	15	65.41	136.7
43.02	20	65.59	137.6
44.22	25	65.60	137.9
45.41	30	65.71	138.2
46.55	35	65.71	139.1
47.64	40	65.85	140.14
48.77	45	65.97	141.5
49.80	50	66.24	143.7
51.87	60	66.54	146.2
53.27	70	67.00	150.4
55.75	80	67.08	151.1
57.34	90	67.76	157.0
59.28	100	68.30	161.9
60.48	107	68.47	163.4
61.48	113	68.85	166.6
62.64	119.9		
63.00	124.1		

E : 32.1% -17° tr.t. 137.3°

Scheffer, 1916

%	f.t.	%	f.t.
62.88	121.8	66.28	144.75
63.89	128.0	66.60	147.65
64.41	131.1	66.87	149.70
64.97	134.6	67.19	152.60
65.46	137.65	67.81	157.95

tr.t. = 137.4°

Benrath, Gjedebo and al., 1937

%	f.t.	%	f.t.
60.6	116	77.7	259
63.8	137	79.1	285
64.5	138	81.0	302
65.6	149	82.1	312
66.9	160	83.4	335
70.0	180	85.1	360
70.1	184	86.8	391
72.1	203	97.1	400
73.2	214	98.5	426
75.6	239	90.4	462

Properties of phases .

Eder, 1880

%	d	%	d
	15°		
0	0.9991	20	1.1285
5	1.0326	30	.1921
10	.0652	41.09	.2920
15	.0960		

33.3% Dt = -16.2

Traube, 1885

%	c	d
	15°	
0	0	0.9991
9.49	10	1.0542
18.10	20	1.1052

Perkin, 1889

%	d 4°	d 15°	d 25°
0	1.0000	0.9991	0.9971
25	-	1.1576	1.1540
40.423	1.2867	1.2805	1.2766

Schiff and Monsacchi, 1896

%	d	%	d
	20°		
0	0.9982	25.00	1.1556
10.81	1.0608	40.42	1.2783
15.31	1.0886	100	2.3956
21.28	1.1278		

Getman, 1908

M	d	M	d
	25°		
0	0.9971	1.323	1.0715
0.216	1.0121	1.588	.0858
0.432	.0247	2.646	.1414
0.647	.0352	3.486	.1758
0.863	.0468	4.357	.2273
1.079	.0583	4.920	.2605

Heydweiller, 1909

M	d	M	d
	18°		
0.05	1.00142	1.0	1.0528
.10	.00419	2.0	.1063
.20	.00959	4.0	.2115
.50	.02605		

Gropp, 1915

t	d
	3.989 N
0	1.2168
18	.2098
48	.1989
78	.1807
100	.1673

Manchot, Jahrstorfer and Zepter, 1924

c	d	c	d
	25°		
10.225	1.0535	20.931	1.1100
10.465	1.0540	40.803	1.2122
20.745	1.1088	41.862	1.2215

Andersen and Asmussen, 1932

%	d
	0°
20.05	1.1244
26.79	1.1749

Getman, 1908

M	η	M	η
	25°		
0	894.9	1.323	857.5
0.216	886.7	1.588	848.0
.432	879.6	2.646	825.4
.647	875.6	3.486	835.6
.863	868.0	4.357	847.0
1.079	864.4	4.920	856.0

Traube, 1885

%	c	σ
	15°	
0	0	73.26
9.49	10	73.67
18.10	20	75.00

Perkin, 1889

%	t	$(\alpha)_{magn.}$
25	19.2	1.4106
40.423	20.0	1.7283

Andersen and Asmussen, 1932

%	$(\alpha)^{mol}_{magn.}$ (5460 Å)
0°	
20.05	10.37
26.79	10.27

Dennhardt, 1899

M	λ 0°	λ 10°	λ 18°
1	73.7	91.2	107.0
2	68.2	83.5	97.5
3	66.3	80.0	93.7
4	65.2	77.7	89.2
5	63.5	75.4	84.6

Johnston, 1907

N	λ	N	λ
	100°		
0.001	393.5	1.00	258.6
.025	369.7	2.00	239.2
.050	357.8	3.00	220.9
.100	336.2	3.79	188.2
.250	310.6	5.43	163.3
.500	286.0		

Heydweiller, 1909

M	λ	M	λ
	18°		
0.05	117.9	1.0	101.8
.10	114.4	2.0	97.7
.20	110.1	4.0	90.1
.50	104.9		

Gropp, 1915

t	κ
3.989 N	
0	2614
18	3605
48	5300
78	7005
100	8064

Andersen and Asmussen, 1932

%	Verdet's constant
0° 5460 Å	
20.05	0.0206
26.79	0.0226

Faasch, 1911

mol/L water	U
18°	
0.494	0.951
0.985	.905
1.983	.820
4.017	.688

Water + Ammonium iodide (NH_4I)

Tammann, 1885

%	p	%	p
	100°		
10.42	739.9	42.82	624.0
20.56	715.6	47.35	598.8
30.60	681.3	60.52	503.8
36.53	656.0	66.56	449.6
38.81	645.1		

Johnston, 1907

%	b.t.	%	b.t.
3.72	100.290	38.2	104.374
10.58	100.790	40.9	104.950
15.90	101.250	42.3	105.361
20.10	101.760	51.1	107.664
25.2	102.335	54.4	108.700
29.1	102.846	56.6	109.568
32.5	103.392	57.8	110.154
35.4	103.870		

Jablezynski and Kon, 1923

m	b.t.	m	b.t.
0.4652	100.439	1.0552	101.004
.6280	100.589	.2248	101.168
.8990	100.847	.5280	101,474

Smith and Eastlack, 1916

%	f.t.	%	f.t.
57.76	-19	67.13	55.5
59.78	-6	67.77	61.3
61.57	+6.4	68.71	70.8
61.99	10.1	69.64	80.8
63.86	25.0	70.93	93.8
64.43	29.6	72.40	110.5
64.72	32.2	74.49	135.0
66.33	47.2	74.65	136.0

E : 55.6% -27.5°

Kordes, 1926

E 13.4 mol% -27°

Kohlrausch, 1879

%	d
	18°
10	1.0652
20	.1397
30	.2260
40	.3260
50	.4415

Röntgen and Schneider, 1886

%	d
	18°
9.14	1.0620
17.77	1.1285

Perkin, 1889

%	d		
	4°	15°	25°
0	0.9997	0.9991	0.9971
30.5	-	1.2340	1.2298
54.64	-	.5109	.5046
58.46	1.5723	.5687	.5619
60.44	1.6021	.5947	.9468

Schiff and Monsacchi, 1896

%	d	%	d
	15°		
0	0.9991	30.50	1.2341
3.355	1.0202	54.64	1.5109
6.71	1.0424	58.46	1.5688
10.92	1.0714	60.44	1.5948
18.58	1.1265	100	2.5168

Le Blanc and Rohland, 1896

%	d
20°	
0	0.9982
12.51	1.0827
19.19	1.1339

Ranken and Taylor, 1906

M	d	M	d
30°		45°	
0	0.9957	0	0.9903
0.125	1.0071	0.125	1.0026
.25	.0181	.25	.0145
.50	.0401	.50	.0380
1	.0944	1	.0853
4	.3513		
6	.5285		

Getman, 1908

M	d	M	d
25°		30°	
0	0.9971	0	0.9957
0.500	1.0447	0.125	1.0071
0.751	.0675	0.25	.0181
1.001	.0913	0.50	.0401
1.501	.1377	1.00	.0944
2.002	.1839	4.00	.3513
3.002	.2765	6.00	.5285
4.003	.3692		
5.004	.4591		

M	d 10°	d 15°	d 20°
1.001	1.0944	1.0937	1.0929
2.002	.1889	.1874	.1859
3.002	.2826	.2806	.2786
4.003	.3763	.3738	.3717
5.004	.4661	.4641	.4611

Heydweiller, 1909

M	d	M	d
18°			
0.05	1.001312	1.0	1.08887
.10	.00868	2.0	.1786
.20	.01676	4.0	.3568
.50	.04412		

Röntgen and Schneider, 1886

%	κ (apparent)
17.6°	
9.14	0.954
17.77	0.910

Ranken and Taylor, 1906

M	η	M	η
30°		45°	
0	802	0	602.9
0.125	792	0.125	595.0
.25	786	.25	592.5
.5	753	.50	585.5
1	729	1.	578.0
4	823		
6			

Getman, 1908

M	η 10°	η 15°	η 20°
1.001	1146	1031	927.7
2.002	1044	956.8	875.2
3.002	994.7	929.7	864.8
4.003	1001	931	869.2
5.004	1051	976.1	901.7

M	η	M	η
25°		30°	
0	894.9	0	802
0.500	857.7	0.125	792
0.751	844.0	0.25	786
1.001	823.7	0.50	774
1.501	808.6	1.00	753
2.002	782.7	4.00	729
2.502	777.9	6.00	823
3.002	784.2		
4.003	799.7		
5.004	832.1		

Le Blanc and Rohland, 1896

%	n_D
20°	
0	1.333
12.51	1.3534
19.19	1.3657

Perkin, 1889

%	t	$(\alpha)_{magn.}$
30.5	21.5	1.7927
54.64	20.0	2.7312
58.46	16.1	2.9356
60.44	21.2	3.0140

Kohlrausch, 1879

%	κ	$\tau.10^4$
	18°	
10	777	202
20	1588	193
30	2465	180
40	3366	167
50	4164	154

Johnston, 1907

N	κ	N	κ
	100°		
0.001	3.775	1.00	2446
0.010	36.48	2.00	4442
0.031	107.7	3.51	5467
0.062	206.6	3.69	5409
0.125	402.8	4.41	5767
0.250	756	10	5983
0.50	1368		

Heydweiller, 1909

M	λ	M	λ
	18°		
0.05	118.0	1.0	103 5
0.1	115.0	2.0	100.0
0.2	111.0	4 0	91 4
0.5	106.0		

Davis and Jones, 1912 - 1913

M	λ 25°	λ 35°	λ 45°
0.77	100.7	114.1	130.4
.50	102.5	125.3	147.5
.25	105.3	125.8	151.3
.10	121.3	148.6	172.6
.02	135.2	160.5	186.3
.01	136.3	161.3	190.8
.005	139.0	168.5	197.7
.0025	143.1	171.2	202.9
.0012	151.1	182.0	215.1
.0006	154.7	184.6	218.4

H_2O + Ammonium nitrite ($N_2H_4O_2$)

Bureau, 1937

%	f.t.	E	%	f.t.	E
10.2	-5.2	-27.80	50.05	-11.15	-27.85
17.95	-10.5	-27.60	56.0	+1.4	-27.95
21.3	-12.4	-27.85	64.3	19.15	-27.95
35.0	-21.75	-27.90	75.0	33.45	-27.90
42.5	-27.95	-27.85	87.8	decomp.	-27.95

H_2O + Ammonium nitrate ($N_2H_4O_3$)

Heterogeneous equilibria .

Vapour pressure and boiling point .

Tammann, 1885

%	p	%	p
	100°		
4.78	745.4	40.26	601.8
5.72	743.4	46.98	564.4
9.99	728.4	48.41	556.7
17.47	704.6	54.24	524.1
24.46	676.5	59.49	484.5
28.28	657.4	63.91	450.8
34.75	627.9	65.85	435.7

Prideaux and Caven, 1919

t	p	t	p	t	p
		47.8 %			
42.2	52	71.2	194	90.8	410
51.4	78	79.6	276	98.2	532
60.8	123	82.2	295		
		50.4 %			
40	42	66	134	86	309.2
48.2	62	71.2	176	90.2	383.5
61.2	108	80.4	258.5	94.1	424
		sat. sol.			
40.1	29.8	68.0	84.0	87.6	137 8
41.0	32.0	70.4	93.0	89.8	143 7
43.0	37.3	70.6	94.8	90.0	145 5
49.8	43.9	74.7	110.0	92.0	152 0
54.5	51.2	80.9	121 7	98.0	166 4
56.2	53.8	81.2	124.4	103.4	177 4
61.3	67.0				

Edgar and Swan, 1922

t	p	%	p
	sat.sol.		
19	12.34	25	17.68
20	13.06	26	18.72
21	14.02	27	19.81
22	14.87	28	20.96
23	15.76	29	22.17
24	16.70	30	23.46

Mondain-Monval, 1923 and 1925

t	p 60 %	p 64.9 %	p 70.6 %
32.6	-	22.83	20.81
40.0	36.90	34.36	31.26
44.6	47.29	43.84	39.77
47.8	-	51.64	46.70

Adams and Merz, 1929

t	p	t	p
	sat. sol.		
10	6.88	30	18.93
15	8.95	40	29.11
20	11.74	50	44.71
25	14.94		

Fricke, 1929

mol %	p 0°	p 10°
6.25	4.313	8.561
13.79	3.864	7.296
17.46	3.694	7.296
24.28	3.388	6.649

Jänecke and Rahlfs, 1930

t	p	t	p	t	p
49.9%		75.8%		89.1%	
103	640	117	641	89	136
101	587	113	560	80	112
94.5	466	101.5	379	61	65
93.0	444	80.5	181	42	30
80.5	271			28	20
65.5	149				
89.7%		96.5%		99.4%	
143.5	716	124	195	165	55
135	563	100	178	160.5	100
124.5	417	80	122	150	167
118	340			140	186
76	100			124	198
				102	172

Gibson and Adams, 1933

%	p	%	p
	20.28°		
15.97	218.0	50.07	179.1
22.28	212.6	56.10	169.1
29.48	205.0	60.47	160.7
46.01	186.0	60.52	161.9

Dingemans, 1940

t	p	t	p	t	p
		sat. sol.			
10.00	6.4	65.00	74.3	117.0	190.6
12.00	7.2	67.00	78.9	120.0	189.4
15.00	8.5	70.00	86.2	122.0	187.7
17.00	9.5	72.00	91.3	124.0	185.2
20.00	11.2	75.00	99.1	125.0	183.6
22.00	12.4	77.00	104.2	127.0	184.7
25.00	14.4	80.00	112.2	130.0	186.2
27.00	15.9	82.00	117.4	132.0	186.5
30.00	18.5	85.00	125.5	135.0	185.5
32.00	20.4	87.00	131.2	137.0	183.8
35.00	23.4	90.0	139.8	140.0	180.2
37.00	25.6	92.0	145.4	142.0	176
40.00	29.3	95.0	153.6	145.0	169
42.00	31.9	97.0	159.0	147.0	163
45.00	36.2	100.0	166.6	150.0	151
47.00	39.2	102.0	171.4	152.0	142
50.00	44.1	105.0	177.8	155.0	127
52.00	47.6	107.0	181.4	157.0	116
55.00	53.1	110.0	186.0	160.0	96
57.00	57.0	112.0	188.4	162.0	82
60.00	63.2	115.0	190.3	165.0	50
62.00	67.5				

Campbell, Fishman and al., 1956

t	p	t	p
	10.00 %		
30.00	31.51	80.00	344.10
40.00	54.48	90.00	508.2
50.00	90.70	100.00	733.2
60.00	145.90	101.40	770.5
70.00	227.17		
	20.00 %		
30.00	30.90	80.00	330.5
40.00	53.84	90.00	486.5
50.00	88.94	100.00	699.8
60.00	141.8	102.00	750.6
70.00	219.3		
	30.00 %		
30.00	30.43	80.00	313.0
40.00	52.00	90.00	459.6
50.00	84.78	100.00	659.9
60.00	134.7	104.00	758.4
70.00	208.2		
	40.00 %		
30.00	26.25	80.00	284.6
40.00	45.30	90.00	420.0
50.00	75.09	100.00	604.3
60.00	120.8	105.71	736.9
70.00	188.0		
	50.00 %		
30.00	25.65	70.00	176.0
40.00	43.39	80.00	265.7
50.00	71.68	87.91	358.9
60.00	113.4	100.00	555.7
	60.00 %		
30.00	21.72	70.00	152.8
40.00	36.96	80.00	231.0
50.00	61.54	90.00	339.5
60.00	98.36	100.00	486.7
	70.00 %		
40.00	31.62	80.00	193.8
50.00	52.10	90.00	285.6
60.00	82.20	100.00	405.5
70.00	128.6		
	80.00 %		
60.00	63.82	90.00	213.5
70.00	98.13	100.00	304.8
80.00	146.4		
	90.00 %		
100.00	210.2	120.00	385.7
105.00	240.2	125.00	445.7
110.00	281.9	130.00	512.0
115.00	330.0		

Legrand, 1835

%	b.t.	%	b.t.	%	b.t.
9.09	101	65.28	115	87.58	138
17.01	102	67.14	116	88.51	140
23.84	103	68.89	117	89.37	142
29.78	104	70.48	118	90.15	144
34.98	105	71.97	119	90.87	146
39.47	106	73.35	120	91.54	148
43.60	107	75.84	122	92.15	150
47.20	108	77.98	124	92.72	152
50.46	109	79.84	126	93.26	154
53.47	110	81.48	128	93.77	156
56.22	111	82.97	130	94.24	158
58.73	112	84.31	132	94.67	160
61.06	113	85.51	134	95.05	162
63.24	114	86.58	136	95.42	164

Gerlach, 1886

%	b.t.	%	b.t.	%	b.t.
0	100	78.07	126	91.25	152
9.09	101	78.99	127	91.51	153
16.67	102	79.84	128	91.78	154
23.08	103	80.66	129	92.03	155
29.08	104	81.45	130	92.28	156
34.21	105	82.18	131	92.52	157
38.65	106	82.87	132	92.75	158
42.53	107	83.53	133	92.94	159
45.95	108	84.13	134	93.19	160
48.98	109	84.71	135	93.40	161
51.92	110	85.25	136	93.60	162
54.55	111	85.82	137	93.79	163
56.88	112	86.33	138	93.96	164
59.18	113	86.75	139	94.13	165
61.24	114	87.04	140	94.29	166
63.24	115	87.78	141	94.45	167
65.13	116	88.05	142	94.58	168
66.89	117	88.44	143	94.72	169
68.45	118	88.85	144	94.84	170
69.88	119	89.16	145	96.00	180
71.27	120	89.50	146	96.90	190
72.60	121	89.83	147	97.58	200
73.89	122	90.13	148	98.25	210
75.06	123	90.43	149	98.83	220
76.13	124	90.71	150	99.41	230
77.12	125	90.96	151	100.00	240

Hoeg, 1930

%	b.t.	%	b.t.
35.1	105	84.0	140
51.9	110	90.75	150
63.1	115	93.4	160
71.3	120	95.9	180
77.15	125	97.55	200
81.4	130		

Campbell and Karızmark, 1950

wt %	mol %	b.t.
10.51	2.6	102.0
20.09	5.3	103.0
22.95	6.3	103.9
28.72	8.3	104.9
43.10	14.5	108.5
50.66	18.8	111.0
61.87	26.7	116.5
68.78	33.1	120.9
80.32	47.8	129.6
87.40	60.9	145.7

Freezing curve .

Rüdorff, 1861

%	f.t.	%	f.t.
0.99	-0.4	7.41	-3.0
1.96	-0.8	9.09	-3.65
3.85	-1.55	10.71	-4.55
5.66	-2.3		

Mulder, 1866

%	f.t.	%	f.t.
48.72-49.49	0	72.49	37.75
61.39	15	79.47	55.3
62.96	16	83.39	68.0
70.30	31	90.39	99.7

de Coppet, 1872

%	f.t.	%	f.t.
1.96	-0.83	23.08	-9.35
4.76	-2.03	28.57	-11.75
5.66	-2.40	33.33	-13.60
9.09	-3.85	37.50	-15.60
10.71	-4.55	41.26	-17.40
16.67	-6.90		

Rüdorff, 1872

%	f.t.	%	f.t.
3.85	-1.55	10.71	-4.40
5.66	-2.30	12.28	-4.90
7.41	-3.00	13.79	-5.55
9.09	-3.75	16.67	-6.70

Guthrie, 1876

%	f.t.	%	f.t.
10	-3.5	43.7	-17.2 E
20	-7.0	47	-12.0
30	-11.5	51	-5.7
40	-17.0	54.1	0.0
		66.5	+18.1

Schwarz, 1892

%	f.t.	%	f.t.
54.16	0	79.22	55
57.09	5	80.78	60
60.53	10	82.16	65
63.52	15	83.27	70
65.16	20	84.54	75
68.07	25	85.26	80
70.27	30	85.55	83
72.40	35	87.07	85
71.34	36	88.12	90
73.06	40	89.10	95
75.31	45	89.70	100
77.53	50		

Müller, 1899

%	f.t.
67.74	28
72.67	31.9
-	32.2 tr.t.

Müller and Kaufmann, 1903

mol%	f.t.	mol%	f.t.
25.65	12.2	37.07	34.0
30.21	20.2	37.42	35.0
31.77	23.0	37.50	35.1
32.48	25.05	37.73	35.6
34.07	27.7	37.89	36.0
34.15	28.0	38.61	37.5
35.23	30.0	38.87	38.0
35.31	30.2	39.06	38.5
36.39	31.9	39.35	39.0
36.55	32.1	39.68	39.5
36.67	32.7	40.05	40.0

Jones, 1904 and Jones and Getman, 1904

M	f.t.	M	f.t.
0.5	-1.686	2.0	-5.996
1.0	-3.145	3.0	-8.720

Johnston, 1906

%	f.t.	%	f.t.
3.64	-1.54	28.00	-11.264
7.50	-3.168	39.14	-14.80
14.95	-6.565		

de Waal, 1910

%	f.t.
54.19	0
70.10	30
84.03	70

Fedotiev and Koltunov, 1914

%	f.t.
54.21	0
62.60	15
69.94	30

Rodebush, 1918

%	f.t.
8.11	- 3.19
17.08	- 6.52
23.91	- 9.06
33.31	-12.70
38.30	-14.72
41.55	-16.17
42.79	-16.67 E

Millican, Joseph and Lowry, 1922

%	f.t.	%	f.t.
59.70	6.2	87.84	85.6
64.64	16.9	88.99	90.4
68.03	24.5	89.70	93.7
71.05	31.9	89.96	95
71.84	34.3	91.10	100.1
73.80	38.1	91.09	100.9
75.71	43.7	91.24	99
78.04	51.5	93.76	112
78.85	55.3	95.23	120.8
80.24	58.4	95.61	122
83.77	71.0	96.80	133
83.96	71.4	97.14	135.8
84.43	72.4	97.99	146
86.56	81.4	98.95	157
86.84	81.7	100	169
87.11	83.8		

tr.t.: 32.84° and 125°

Kazantsev, 1923

%	f.t.	%	f.t.
I		II	
54.3	0	73.3	40
60.0	10	74.3	42.5
62.4	15	75.0	45
65.0	20	76.7	50
67.6	25	80.0	60
70.2	30	84.1	75
70.6	32.5	85.7	80
71.8	35	88.3	90
72.3	37.5	90.1	98.5

tr.t. = 37 - 38°

Mondain-Monval, 1923

%	f.t.	%	f.t.
68.25	26.7	70.96	32.9
69.11	28.6	71.29	33.8
69.44	29.4	71.78	35.3
69.95	30.4	72.14	36.0
70.10	30.8	73.30	39.2
70.70	32.2		

Cohen and Breda, 1925

%	f.t.	%	f.t.
III		IV	
71.12	33.00	0	54.23
72.21	36.00	5	57.23
73.27	39.00	10	60.05
74.32	42.00	15	62.76
75.34	45.00	20	65.24
76.35	48.00	25	67.63
		30	69.90
		32	70.77

Kordes, 1926

mol%	f.t.
13.6	-17
100.0	+169

Hoeg, 1930

%	f.t.	%	f.t.
66.1	20	91.0	100
73.7	40	97.7	120
80.2	60	97.4	140
85.9	80		

Kurnakov and Ravich, 1933

%	f.t.	
42.30	-16.90	ice + rhombic I
47.24	-10	rhombic II
54.94	0	"
68.19	+25	"
72.21	35	rhomboedric
79.40	55	"
85.68	80	"
86.89	86	cubic
89.41	100	"
95.64	130	tetragonal

tr.t.: rhombic I-II -16°
rhombic-rhomboedric +32.3°
rhomboedric - cubic 85°
cubic - tetragonal 125°

Nikitina, 1933

%	f.t.		%	f.t.
54.23	0	I	74.25	40
60.00	10		78.00	50
62.40	15		80.58	60
65.05	20		83.70	70
68.20	25		83.63	80
70.36	30		88.91	90
72.00	32.5	II	90.30	100
73.10	36			

Bergman and Bochkarev, 1938

%	f.t.	%	f.t.
10	-3.7	50	-5.1
20	-7.4	55	2.2
30	-10.8	60	10.6
40	-15.2	70	31.5
46	-11.8		

E: 43.0% -16.6°

Thompson and Vener, 1948

%	f.t.
69.86	30
73.58	40
76.99	50
80.14	60
83.20	70

Wishaw and Stokes, 1953

m	osmotic coefficient	m	osmotic coefficient
	25°		
0.1	0.911	7.0	0.653
.2	.890	8.0	.639
.3	.874	9.0	.627
.4	.864	10.0	.616
.5	.855	11.0	.607
.6	.847	12.0	.598
.7	.840	13.0	.591
.8	.834	14.0	.583
.9	.829	15.0	.576
1.0	.823	16.0	.569
.2	.813	17.0	.562
.4	.803	18.0	.556
.6	.793	19.0	.550
.8	.785	20.0	.544
2.0	.776	21.0	.539
2.5	.758	22.0	.534
3.0	.743	23.0	.528
3.5	.728	24.0	.524
4.0	.715	25.0	.519
4.5	.702	26.0	.514
5.0	.690	27.0	.509
6.0	.670	25.954	.514

m_1	m_2	m_1	m_2
	25°		
0.1106	0.1135	3.361	5.234
.2322	.2426	.561	5.717
.4352	.4670	.853	6.432
.6170	.6772	4.127	7.120
.7881	.8833	.320	7.639
1.001	1.148	.517	8.185
.157	.352	.713	8.751
.276	.514	.836	9.112
.464	.779	.994	9.590
.556	.917	5.123	9.985
.712	2.149	.322	10.605
.867	.396	.405	10.875
.910	.458	.566	11.407
2.137	.833	.629	11.615
.232	.991	.814	12.243
.354	3.212	.917	12.595
.544	.554	6.061	13.106
.881	4.223	.127	13.337
3.090	.640		

m_1 - NaCl m_2 - Ammonium nitrate

m_3	m_2	m_3	m_2
	25°		
4.309	13.103	5.585	21.751
4.422	13.766	5.764	23.158
4.560	14.606	5.840	23.766
4.627	15.012	5.921	24.414
4.763	15.879	5.984	24.978
5.015	17.573	6.053	25.583
5.065	17.921	6.099(satd.)	25.954
5.296	19.584	6.105	25.994
5.357	20.015	6.159	26.482
5.482	20.943	6.227	27.072

m_3 = SO_4H_2

Properties of phases . Density .

Gerlach, 1866 and 1869

%	d	%	d
	17.5°		
0	0.9987	33	1.1439
1	1.0029	34	.1487
2	.0072	35	.1535
3	.0114	36	.1583
4	.0157	37	.1631
5	.0199	38	.1679
6	.0242	39	.1727
7	.0284	40	.1775
8	.0327	41	.1826
9	.0369	42	.1877
10	.0412	43	.1927
11	.0455	44	.1979
12	.0498	45	.2029
13	.0541	46	.2080
14	.0585	47	.2131
15	.0628	48	.2182
16	.0672	49	.2233
17	.0715	50	.2284
18	.0759	51	.2337
19	.0802	52	.2391
20	.0846	53	.2446
21	.0891	54	.2498
22	.0936	55	.2551
23	.0981	56	.2606
24	.1026	57	.2659
25	.1071	58	.2712
26	.1116	59	.2764
27	.1161	60	.2818
28	.1206	61	.2871
29	.1250	62	.2925
30	.1295	63	.2988
31	.1343	64	.3042
32	.1391	sat.sol.	.3030

Thomsen, 1870

%	d
18°	
0	0.9986
4.26	1.0180
8.16	.0331
18.18	.0743

Thomsen, 1871

mol%	d
18°	
0	0.9986
1.0	1.0180
2.0	.0331
4.8	.0743
16.7	.2046

Kohlrausch, 1879

%	d	%	d
		15°	
5	1.0201	30	1.1304
10	.0419	40	.1780
20	.0860	50	.2279

Kanonnikov, 1885

%	t	d
0	20	0.9983
16.61	21.6	1.0680

Röntgers and Schneider, 1886

%	d	%	d
	18°		
5.26	1.0211	10.87	1.0452
6.23	1.0255	12.60	1.0529

Humburg, 1893

%	d
16°	
0	0.9990
14.06	1.0629
23.48	1.1024

Schiff and Monsacchi, 1896 and 1897

%	d	%	d
	23°		
0	0.9976	21	1.0860
4	1.0133	28	.1175
7	.0260	42	.18276
14	.0559	63	.2955
21	.0860	100	.6973

Sentis, 1897

mol%	t	d	mol%	t	d
1	18.0	1.0159	10	14.25	1.1450
1	25.2	.0138	20	24.8	.2288
2	18.0	.0327	20	17.0	.2406
3	18.0	.0484	20	16.7	.2419
10	24.9	.1359	20	3.2	.2486

Müller and Kaufmann, 1903

t	mol %	d
	sat. sol.	
12.2	25.65	1.2945
20.2	30.21	.3116
23.0	31.77	.3159
25.05	32.48	.3197
27.7	34.07	.3257
28.0	34.15	.3260
30.0	35.23	.3299
30.2	35.31	.3308
31.9	36.39	.3348
32.1	36.55	.3344
32.7	36.67	.3356
34.0	37.07	.3375
35.0	37.42	.3394
35.1	37.50	.3397
35.6	37.73	.3408
36.0	37.89	.3412
36.6	-	.3420
37.5	38.61	.3432
38.0	38.87	.3438
38.5	39.06	.3440
39.0	39.35	.3448
39.5	39.68	.3460
40.0	40.05	.3464

Zecchini, 1905

%	t	d
0	10	0.99973
7.056	10.2	1.02959
19.600	8.7	.08573
28.115	9.9	.12478
44.306	10.9	.20213

Chèneveau, 1907

%	d
19°	
0	0.9984
7.42	1.0297
14.49	.0598
17.06	.0734
21.15	.0881
27.45	.1174
33.43	.1451

Getman, 1908

M	d	M	d
	25°		
0	0.9971	2.012	1.0602
0.256	1.0059	.245	.0676
.512	.0137	.587	.0777
.767	.0215	.909	.0873
1.023	.0300	3.636	.1078
.279	.0373	4.664	.1396
.454	.0432		

Rower, 1910

%	d
25°	
10.485	1.0398
12.096	.0412
20.589	.0831
27.553	.1142
49.378	.2237
62.030	.2869

Fedotiev and Koltunov, 1914

%	t	d
54.21	0	1.264
62.60	15	1.298
69.94	30	1.329

Rabinowitsch, 1921

%	d	%	d
	100°		
0	0.900	40.9	1.129
1.00	.962	50.9	.175
2.08	.964	61.8	.237
5.27	.978	71.8	.293
10.50	.997	81.4	.355
20.70	1.039	86.8	.383
30.90	.082		

Manchot, Jahrstorfer and Zepter, 1924

c	d
25°	
7.125	1.0249
14.809	.0527
29.058	.1040
59.236	.2116

Cohen, Helderman and Moesveld, 1924

%	d	%	d
	32.3°		
10.01	1.03490	49.01	1.21703
20.05	.07713	59.52	.26823
30.08	.12151	69.62	.32464
39.95	.16782		

Cohen and Breda, 1925

%	d	
	32.3°	50.0°
14.99	-	1.04685
25.00	1.09876	.08899
34.99	.14447	.13370
44.98	.19290	.18162
54.98	.24418	.23271
64.98	.29865	.28683
70.65	.33111	-
74.99	-	.34502

Hoeg, 1930

%	d (at f.t.)	%	d (at f.t.)
35.1	1.100	66.1	1.3115
51.9	.177	73.7	.3415
63.1	.234	80.2	.3519
71.3	.276	85.9	.3940
77.15	.306	91.0	.4145
81.4	.328	97.7	.4260
84.0	.358	97.4	.4360
90.75	.375		
93.4	.390		
95.9	.398		
97.55	.401		

t	d					
	20%	30%	40%	50%	60%	70%
20	1.0830	1.1275	1.1750	1.2250	1.2785	-
40	.0725	.1160	.1630	.2130	.2660	1.3220
60	.0620	.1045	.1510	.2005	.2525	.3091
80	.0515	.0935	.1390	.1875	.2395	.2960
100	.0410	.0820	.1270	.1745	.2265	.2825

t	d			
	80%	90%	94%	97%
60	1.3685	-	-	-
80	.3555	-	-	-
100	.3420	1.4075	-	-
120	.3285	.3930	1.4210	-
140	-	.3785	.4065	1.4285
160	-	-	.3940	.4165
180	-	-	-	.4060

Adams and Gibson, 1932 and 1934

%	d	%	d
	25°		
0	0.997076	35.0106	1.149033
0.9995	1.001140	44.7123	.196321
4.9970	.017294	54.9843	.249263
9.9138	.037518	59.9944	.276264
15.0141	.059017	64.9347	.303742
20.0140	.080628	65.1941	.305205
24.9921	.102745	67.7622	.319876
25.0045	.102791		

Lühdemann, 1935

N	m	d
	25°	
00	0	0.99707
1.1555	1.2289	1.03353
2.0506	2.2864	.06100
2.7274	3.1594	.08146
3.6544	4.5406	.11025
4.4434	5.7286	.13224
5.5277	8.4593	.17483
7.4564	12.0204	.21815
7.4564	12.0209	.21819

Guillaume, 1946

%	d
24°	
11.8	1.0495
21.2	.0904
28.6	.1236
39.4	.1747

Campbell, Kartzmark and al., 1950

%	M	d	%	M	d
	24.99°			25°	
0.80	0.100	1.001	0.80	0.181	1.0002
7.81	1.004	.029	7.75	1.855	.028
15.06	1.993	.059	15.08	3.941	.059
21.91	2.982	.089	21.99	5.961	.089
28.74	4.020	.120	28.66	8.287	.119
34.93	5.014	.149	34.77	10.71	.147
41.01	6.036	.178	40.93	13.48	.187
46.54	7.015	.206	46.80	16.59	.205
51.98	8.011	.234	52.10	19.65	.233
57.31	9.043	.262	56.63	22.70	.257
62.14	10.004	.289	62.32	27.11	.284
68.49	11.282	.319	68.49	32.83	.319

Campbell and Kartzmark, 1952

%	d	%	d
95°			
0.728	0.9656	45.89	1.157
1.605	.9677	53.12	.198
8.041	.9918	57.50	.217
12.119	1.0071	64.65	.253
19.895	.0365	69.54	.281
26.960	.0690	79.74	.336
31.116	.0860	85.58	.385
38.130	.1180		

Campbell and Kartzmark and al., 1953

%	d	%	d
35.0°		25.0°	
0.0	0.99406	0.0	0.99707
0.4324	0.9958	0.0540	0.99883
7.9779	1.0269	1.0261	1.02957
12.963	.0461	.7009	.05028
14.533	.0523	.9184	.05670
18.352	.0688	2.4611	.0735
28.572	.1136		
38.071	.1579		
47.424	.2038		
50.378	.2188		
66.012	.3035		

Campbell, Kartzmark and al., 1954

%	M	d
180°		
0.7984	0.0890	0.8919
8.5160	0.9868	0.9276
16.077	1.922	0.9571
24.028	2.982	0.9935
24.028	2.988	0.9955
32.141	4.136	1.030
38.692	5.133	1.062
38.692	5.128	1.061
45.215	6.207	1.099
50.190	7.029	1.121
54.907	7.854	1.145
58.590	8.534	1.166
61.995	9.170	1.184
66.71	10.15	1.218
66.85	10.13	1.213
71.20	10.95	1.231
76.42	12.14	1.272
78.84	12.70	1.290
83.78	13.84	1.322
85.15	14.11	1.326
88.50	14.98	1.355
100.00	18.00	1.440

De Heen, 1881

t	relative volume	t	relative volume
9.06 %			
10.00	1.000000	40.92	1.011006
13.70	.001014	50.83	.015728
21.20	.003292	59.20	.020090
29.54	.006291	69.70	.026121
24.93 %			
10.00	1.000000	39.44	1.013131
15.10	.001986	49.50	.018271
19.60	.003864	59.10	.023659
28.25	.007705	74.45	.032760
35.63 %			
10.00	1.000000	48.05	1.019166
18.70	.003984	56.79	.024146
27.62	.008311	69.91	.032016
34.84	.011990		

de Launoy, 1895

t	relative volume 4%	12%	20%	44%
0	1.00000	1.00000	1.00000	1.00000
10	.00060	.00242	.00331	.00465
20	.00282	.00549	.00718	.00948
30	.00617	.00920	.01134	.01447
40	.00995	.01338	.01600	.01960
50	.01409	.01805	.02098	.02498
60	.01882	.02312	.02633	.03058
70	.02420	.02870	.03218	.03636
80	.03015	.03475	.03825	.04240

Röntgers and Schneider, 1886

%	π (relative)
18°	
5.26	0.954
6.23	.945
10.87	.906
12.60	.893

Viscosity and surface tension

Getman, 1908

M	η	M	η
25°			
0	894.9	2.012	850.4
0.256	885.3	.245	850.0
.512	879.7	.587	856.5
.767	872.4	.909	862.7
1.023	865.6	3.636	885.0
.279	860.2	4.664	930.8
.454	857.9		

Rabinowitsch, 1921

%	η(water=1)	%	η(water=1)
100°			
0	1.000	40.9	1.54
1.00	.006	50.9	1.84
2.08	.013	61.8	2.53
5.27	.037	71.8	3.71
10.50	.077	81.4	6.01
20.70	.175	86.8	8.44
30.90	.319		

Tammann and Rabe, 1928

%	η 0°	η 10°	η 30°	η 75°
7.41	1620.8	1219.5	787.9	396.0
13.80	1539.8	1169.3	787.2	407.6
19.36	1501.0	1168.2	789.4	424.0
24.25	1443.3	1179.2	803.2	439.8
28.58	1502.2	1194.2	828.1	456.4

Malquori, 1929

t	η	t	η	t	η
0.4773N		0.9546N		1.4319N	
14.8	1109	15.4	1078	14.2	1073.2
35.6	728	35.6	738	35.7	726
45.6	629	45.4	640	45.6	630
60.0	510	60.0	524	60.0	519

Wolkowa and Titow, 1931

d	η	d	η
15°			
1.2821	1778	1.1116	1082
.2441	1486	.0900	1062
.2219	1366	.0677	1060
.1859	1230	.0529	1061
.1437	1120	.0231	1087

Campbell and Kartzmark, 1950

%	M	η(water=1)	%	M	η(water=1)
24.99°					
0.80	0.100	0.991	41.01	6.036	1.144
7.81	1.004	.960	46.54	7.015	.234
15.06	1.993	.952	51.98	8.011	.366
21.91	2.982	.977	57.31	9.043	.531
28.74	4.020	1.009	62.14	10.004	.776
34.93	5.014	1.061	68.49	11.282	2.170

Campbell and Kartzmark, 1952

%	η(water=1)	%	η(water=1)
95°			
1.605	1.016	53.12	1.777
8.041	.054	57.50	1.913
12.119	.076	64.65	2.381
19.895	.142	69.54	2.705
26.960	.217	79.74	3.890
31.116	.296	85.58	4.290
45.89	.555		

Campbell, Kartzmark and al., 1953

%	η	M	η
35°		25°	
0.0	722.5	0.0000	893.7
0.4324	722.2	0.0540	892.4
7.9779	711.9	1.0261	863.5
12.963	711.4	.7009	856.4
14.533	713.2	.9184	856.1
18.352	721.1	2.4611	860.4
28.572	763.9	3.9940	900.5
38.071	842.7	5.5346	984.6
47.424	974.8	7.1685	1132.4
50.378	1032.5	7.7100	1200
59.378	1295.1	9.4584	5047
66.012	1613.9	10.8027	8820

Campbell and Debus, 1955

%	η(water=1)	%	η(water=1)
180.0°			
0.80	1.011	54.89	2.055
8.51	.093	58.59	.237
16.06	.168	61.96	.397
23.97	.268	69.70	.819
32.06	.395	76.50	3.340
38.68	.524	84.07	3.980
45.24	.715	88.63	4.650
50.19	.862	100.00	10.100

Sentis, 1897

%	t	σ
0	13.5	74.0
0	25.1	72.3
1	18.0	73.8
1	25.2	72.8
2	18.0	74.4
3	18.0	75.1
10	24.9	77.4
10	14.25	79.0
20	24.8	81.7
20	16.7	82.8
20	17.0	82.9
20	3.2	84.4

Forch, 1905

M	t	σ
0	15	73.26
0.904	14.5	77.93
1.808	14.7	78.97
3.76	15.0	80.99
5.57	14.5	83.29
7.50	15.5	85.82

Rehbinder, 1926

%	σ	%	σ
100°			
0	58.7	40	65.3
5	59.2	50	67.5
10	60.1	54	68.5
20	61.6	88	85.5
30	63.3	100	103.8

Optical and electrical properties

Kanonnikov, 1885

%	t	n Hα	n D	n Hβ
0	20	1.33130	1.33310	1.337380
16.61	21.6	1.351806	1.353968	1.358006

Doumer, 1892

%	n_D	%	n_D
15°			
0	1.3334	26.01	1.3674
5.35	.3419	34.12	.3778
13.34	.3509	42.03	.3883
20.41	.3599	50.09	.3986

Jones, 1904, Jones and Getman, 1904

M	n_D
0°	
0	1.33395
0.05	.32538
0.10	.32585
0.20	.32687
0.5	.32989
1.0	.33485
2.0	.34449

Zecchini, 1905

%	t	n_D
0	10	1.33368
7.056	10.2	.34277
19.600	8.7	.35928
28.115	9.9	.37092
44.306	10.9	.39362

Chéneveau, 1907

%	n_D	%	n_D
19°			
0	1.3331	21.15	1.3597
7.42	.3421	27.45	.3682
14.49	.3512	33.43	.3762
17.06	.3554		

%	C	D	n Tl	F	G'	
9.8°						
31.33	1.1388	1.37517	0.00233	0.00196	0.00543	0.00983

Rower, 1910

%	n_D	%	n_D
25°			
0	1.33255	27.553	1.3680
10.485	.3455	49.378	.3999
12.096	.3458	52.568	.4025
20.589	.3582	62.030	.5656

Muller and Guerdjikoff, 1912

%	n_D	%	n_D
25°			
0	1.3326	27.55	1.3680
10.49	.3455	49.38	.3999
12.10	.3458	62.03	.4185
20.59	.3582		

Lühdemann, 1935

N	m	n_D	N	m	n_D
25°					
0	0	1.33254	4.4434	5.7286	1.37284
1.1555	1.2289	.34350	5.9211	8.4553	.38540
2.0506	2.2864	.35172	7.4564	12.0204	.39811
2.7274	3.1599	.35781	7.4567	12.0209	.39810
3.6944	4.5406	.36637			

Guillaume, 1946

%	n_{5780}
24°	
11.8	1.3484
21.2	.3605
28.6	.3703
39.4	.3850

Humburg, 1893

%	$(\alpha)^{mol}_{magn.}$
16°	
0	1.000
14.06	2.1702
23.48	2.150

Rower, 1910

%	$(\alpha)_{magn.}$	%	$(\alpha)_{magn.}$
25°			
0	5.068	27.553	4.693
10.485	4.801	49.378	4.505
12.096	.777	62.030	4.433
20.589	.726		

Muller and Guerdjikoff, 1912

%	$(\alpha)^{magn.}_{D}$
0	4.864
10.49	.801
12.10	.777
20.59	.726
27.55	.693
49.38	.505
62.03	.433

Mallemann and Guillaume, 1945

d= 1.0885 $(\alpha)_{magn.10^5}$ = 16.62

Guillaume, 1946

%	$^*(\alpha)_{magn.}10^6$
24°	
11.8	3.756
21.2	.572
28.6	.431
39.4	.232

* in radians, gauss, centim.

Okazaki, 1933

%	Verdet's constant . 10^5
28°	3514 Å
6.20	4130
14.38	4092
24.30	4046
35.24	3996
37.25	4008
46.90	3920

Kohlrausch, 1879

%	κ	$\tau.10^4$
	18°	
5	553	204
10	1047	195
20	1930	180
30	2660	169
40	3158	161
50	3402	157

Dennhardt, 1899

M (18°)	λ		
	0°	10°	18°
5	45.2	54.4	63.0
4	47.8	59.9	68.2
3	51.0	64.0	73.7
2	55.0	70.5	81.0
1	58.2	76.4	89.0
0.5	60.2	79.5	94.6

Jones, 1904; Jones and Getman, 1904

M	λ	M	λ
	0°		
0.05	67.49	0.5	60.26
.10	65.05	1.0	54.97
.20	63.44	2.0	52.81

Johnston, 1906

N	λ	N	λ
	99.4°		
10	81.8	0.5	238.7
8	100.5	.25	248.4
5	139.2	.10	274.4
2	197.1	.10	365.3
1	219.8		

Sloan, 1910

M	λ	M	λ
	0°		
8.47	31.22	0.31	64.41
5.00	45.01	.16	66.87
2.50	54.05	.08	69.72
1.25	58.36	.04	71.45
0.62	61.20		

Rabinowitsch, 1921

%	κ	%	κ
	100°		
1.00	390	40.9	7480
2.08	750	50.9	7920
5.27	1600	61.8	7630
10.50	3060	71.8	6730
20.70	5140	81.4	5340
30.90	6610	86.8	4340

Malquori, 1929

t	κ	t	κ	t	κ
0.4773N		0.9546N		1.4319N	
14.8	445.4	15.4	847.1	14.2	1215.6
35.6	653.8	35.6	1211.6	35.7	1712.9
45.6	750.4	45.4	1387.8	45.6	1949.4
60.0	916.5	60.0	1679.4	60.0	2363.5

Campbell and Kartzmark, 1950

%	M	ϰ	%	M	ϰ
		24.99°			
0.80	0.100	122.7	41.01	6.036	3809
7.81	1.004	1017	46.54	7.015	3979
15.06	1.993	1833	51.98	8.011	4036
21.91	2.982	2513	57.31	9.043	3973
28.74	4.020	3085	62.14	10.004	3819
34.93	5.014	3507	68.49	11.282	3538

Campbell and Kartzmark, 1952

%	ϰ	%	ϰ
	95°		
0.728	269	45.89	7696
1.605	534	53.12	7776
8.041	2340	57.50	7695
12.119	3257	64.65	7318
19.895	4781	69.54	6898
26.960	6008	79.74	5599
31.116	6529	85.58	4252
38.130	7219		

Campbell, Kartzmark and al., 1953

%	ϰ	%	ϰ
	35°		
0.4324	82.3	28.572	3545
7.9779	1222	38.071	4210
12.963	1881	47.424	4554
14.533	2068	50.378	4590
18.352	2528	59.457	4465
		66.012	4141

Campbell, Kartzmark and al., 1954

%	M	ϰ	%	M	ϰ
		180°			
0.7984	0.0890	474	58.590	8.534	11180
8.5160	0.9868	3752	61.995	9.170	11040
16.077	1.922	6192	66.71	10.15	10630
24.028	2.982	8172	66.85	10.13	10500
24.028	2.988	8165	71.20	10.95	10140
32.141	4.136	9718	76.42	12.14	9338
38.692	5.128	10580	78.84	12.70	8828
45.215	6.207	11000	83.78	13.84	7881
50.190	7.029	11190	85.15	14.11	7817
54.907	7.854	11220	88.50	14.98	7003
			100.00	18.00	4333

Heat constants.

Thomsen, 1871

mol%	U
18°	
1.0	0.962
2.0	.929
4.8	.859
16.7	.697

Winkelmann, 1873

%	U	%	U
3.04	0.9654	20.00	0.8606
10.01	.9208	30.00	.8774
20.00	.8606	40.00	.7227

Marignac, 1876

%	U	%	U
	20-52°		
4.28	0.9610	26.25	0.8090
8.11	.9293	37.21	.7437
15.09	.8797	47.06	.6942

Cohen, Helderman and Moesveld, 1924

%	U	%	U
	32.3°		
10.03	0.9254	50.03	0.6847
19.22	.8620	61.31	.6297
30.03	.7931	69.46	.5935
40.06	.7379		

Rutskov, 1948

%	U 25°	U 50°	U 75°
4.254	-	0.9620	0.9647
8.161	0.9286	.9310	.9338
18.18	-	.8595	.8590
35.71	0.7510	.7495	.7480
59.70	0.6280	.6520	.6210

Cohen and Helderman, 1924

% initial	% final	Q diss.
12.52	15.04	-4903
26.53	28.47	4120
26.47	28.49	3717
40.30	42.34	-3584
40.29	42.22	3187
54.07	55.47	-3200
54.07	55.47	2796
68.40	69.10	2940
68.40	69.10	-2539

Mondain-Monval, 1925

mol%	t	Q diss
0.87	0	-6480
	19	-6200

% initial	% final	t	Q dil (by mole salt)
20.8	0.69	0	-2700
		19	-2500

Q addition to a large quantity of a saturated sol.

addition of	0°	19°
one mole water	-210	-260
quantity of water necessary to dissolve one mole of salt	-790	-650

Lerner-Steinbberg, 1926

initial 64% = 28.6 mol%

mol% final	Q dil	mol% final	Q dil
18.2°			
1.23	-2409	0.603	-2561
1.01	2462	0.497	2588
0.746	2518	0.429	2607
25°			
0.999	2280	0.494	2385
0.752	2333	0.430	2392
0.595	2368		
21.6°		18.2°	
0.604	2459	0.752	2522

Campbell, Kartzmark and al., 1954

%	Q vap. (cal/mole)	%	Q vap. (cal/mole)
50°			
10.00	10158	60.00	10054
20.00	10047	70.00	9999
30.00	9948	80.00	9834
40.00	10130	90.00	9759
50.00	9832		

Water + Ammonium perchlorate (NH_4ClO_4)

Freeth, 1924

%	f.t.	%	f.t.
9.8	-2.7 E	28.02	+45
10.74	0	33.64	+60
20.02	+25	39.45	+75

Mathieu, 1949

%	f.t.
4.709	-1.3
8.698	-2.4
9.443	-2.6

%	f.t. 1 atm.	f.t. 250 atm.	f.t. 500 atm.
15.35	12.75	12.95	13.47
18.00	19.90	20.76	21.76
18.93	22.40	23.23	24.27
22.54	32.00	33.39	34.79
28.76	48.25	50.01	52.78
33.97	61.60	63.61	65.62

%	f.t. 750 atm.	f.t. 1000 atm
15.35	14.32	15.50
18.00	22.90	24.18
18.93	25.53	27.00
22.54	36.18	37.58
28.76	53.54	55.30
33.97	67.63	69.64

Carlton, 1910

c	t	d
11.563	0	1.059
20.845	20	1.098
30.577	40	1.128
39.050	60	1.158
48.186	80	1.193
57.006	100	1.216
59.115	107 b.t.	1.221

Mazzucchelli and Anselmi, 1922

%	d 15°	d 25°
2.072	1.0094	1.0070
3.728	.0174	.0147
4.352	.0236	.0207
6.515	.0310	.0282
7.685	.0373	.0340
8.768	.0436	.0403
11.713	.0578	.0544
12.447	.0616	.0579
13.386	.0668	.0628
14.553	.0740	.0700
15.394	.0773	.0731

Water + Ammonium trinitrate ($H_6N_4O_9$)

Groschuff, 1904

mol %	f.t.
39.1	- 8.0
42.9	- 2.5
47.4	+ 3.0
53.1	+ 8.5
69.2	+19.5
81.8	+25.0
100.0	+29.5

Water + Halfammonium phosphate ($H_9NO_8P_2$)

Parravano and Mieli, 1908

%	f.t.
64.10	48.5
74.07	66.2
84.48	92.5
86.38	97.0
92.58	109.8
95.80	112.8
100.00	118

Water + Monoammonium phosphate (H_6NO_4P)

Edgar and Swan, 1922

t	p	t	p
	sat. sol		
19	13.30	25	19.26
20	14.20	26	20.42
21	15.12	27	21.67
22	16.09	28	23.01
23	17.11	29	24.42
24	18.06	30	25.82

Adams and Merz, 1929

t	p	t	p
10	8.94	30	29.18
15	12.44	40	50.05
20	16.50	50	81.56
25	21.91		

Apfel, 1911

M	f.t.	M	f.t.
1.73	0	3.569	50
2.375	25	4.35	70
2.50	25	4.93	83

Buchanan and Winner, 1920

%	f.t.	%	f.t.
20.35	4.8	49.7	69.0
26.3	18.3	59.0	90.0
31.6	30.0	63.6	102.0
36.2	40.0	67.6	110.5
40.8	50.0		

Bergman and Bochkarev, 1938

%	f.t.	%	f.t.
0	0	19	+2.7
4	-1.0	20	5.1
8	-2.0	22	11.0
12	-3.0	24	16.9
16	-3.8	26	20.8
17	-4.1	28	25.9
18	-4.3	30	29.3

E : 17.4% -4.4°

Polosin and Ozolin, 1940

%	f.t.	%	f.t.	%	f.t.
4	-1.0	15	-3.48	24	13.46
5	-1.26	16	-3.8	28	22.80
8	-1.9	17	-4.0	30	27.43
10	-2.37	18	-4.2	32	31.76
12	-2.85	20	+4.0	36	40.43

Polosin, 1946

%	f.t.	%	f.t.	%	f.t.
6.0	-1.5	20.0	+4.6	27.0	22.2
11.5	-2.7	21.0	+7.6	30.0	29.0
16.5	-3.9	23.0	12.3	33.0	35.4
18.8	-4.4	25.0	17.0	36.0	41.9

Polosin and Treshchov, 1953

%	f.t.	%	f.t.
10	- 3	30	+27
16.9	- 4.3 E	35	+39
20	+ 3		

Chomjakow, Jaworowskaja and Schirokich, 1933

%	d	%	d
	23°		
8.147	1.0425	16.917	1.0938
9.594	.0500	20.435	.1125
10.950	.0619	27.953	.1580
13.885	.0745	sat.sol.	.1597

Gladstone and Hibbert, 1897

%	molar refraction H_α	D	H_β
		room t.	
11.51	32.6	33.15	32.88
21.40	32.40	32.75	32.80

Chomjakow, Jaworowskaja and Schirokich, 1933

mol %	Q diss	mol %	Q diss	mol %	Q diss
0.46	-3895	2.69	-3803	4.00	-3787
0.91	-3874	3.11	-3783	4.45	-3782.4
1.30	-3848	3.55	-3787	4.89	-3778.5
1.81	-3830	3.95	-3783	5.35	-3776
2.24	-3815				

Water + Diammonium phosphate ($H_9N_2O_4P$)

Buchanan and Winner, 1920

%	f.t.	%	f.t.
30.0	0	45.05	40
38.4	10	47.1	50
40.8	20	49.4	60
42.6	30	51.5	70

Chomjakow, Jaworowskaja and Schirokich, 1933

%	d	%	d
	23°		
31.59	1.1918	39.153	1.2354
36.48	1.2198	2 sat.sol.	1.2465

Jänecke, 1936

%	f.t.	%	f.t.
63.0	123-117	80.6	184÷180
65.9	130.132	83.1	191-193
74.8	163-159		

Chomjakow, Jaworowskaja and Schirokich, 1933

mol %	Q diss	mol %	Q diss	mol %	Q diss
0.53	-2989	4.08	-2288	6.49	-2090
1.05	-2785	4.57	-2235	6.74	-2112
1.56	-2637	5.50	-2164	7.07	-2073.9
2.07	-2525	5.53	-2134	7.60	-2061.5
2.58	-2426	6.06	-2110	8.14	-2053
3.08	-2352				

Water + Ammonium Diborate ($H_8B_4N_2O_7$)

Sborgi and Ferri, 1922

%	f.t.	%	f.t.
3.61	-1.08	15.77	40
3.75	0	18.41	45
5.24	+10	29.48	60
7.78	20	41.17	75
10.80	50	52.68	90
13.01	25		

Water + Ammonium pentaborate ($H_8B_{10}N_2O_{16}$)

Sborgi and Ferri, 1922

%	f.t.	%	f.t.
3.92	-1.37	11.40	40
3.95	0	12.81	45
5.39	+10	18.25	60
7.07	20	24.40	75
9.10	30	30.29	90
10.02	35		

Water + Ammonium Hydrogen carbonate (CH_5NO_3)

Jänecke, 1929

%	f.t.	m.t.	%	f.t.	m.t.
11.2	13.9	13.7	53.2	-	74.8
13.65	24.4	24.2	56.7	-	81.2
27.6	42.4	42.1	63.1	-	89.8
36.8	48.5	48.4	90.0	111	105
33.9	54.6	54.4	95.0	111	108
43.2	63.6	63.6	100.0	-	108

Water + Ammonium sulfite ($H_8N_2O_3S$)

Yasuda, 1924

c	f.t.	c	f.t.
40.32	12	48.59	30
42.65	15	50.24	40
45.15	20	57.06	50
47.096	25	63.37	60

Ishikawa and Murooka, 1933

%	f.t.	%	f.t.
4.961	- 1.73	37.80	+20
5.162	- 1.82	39.29	25
9.698	- 3.35	40.77	30
13.044	- 4.61	42.32	35
16.817	- 6.27	43.96	40
20.505	- 7.97	47.26	50
23.652	- 9.69	50.94	60
28.418	-12.74	54.71	70
28.850	-12.96	56.52	75
29.16	-11.52	58.89	80
32.40	0	59.53	85
33.81	+ 5	60.00	90
35.05	+10	60.30	95
36.40	+15	60.44	100

(1+1) tr.t. = 80.8°

%	d	%	d
32.40	1.1792	50	1.2306
33.81	.1846	60	.2429
35.05	.1896	70	.2558
36.40	.1943	75	.2629
37.80	.1995	80	.2716
39.29	.2042		
40.77	.2097		
42.32	.2155		
43.96	.2203		

Vasilenko, 1950

%	f.t.	%	f.t.
4.1	-1.5	30.7	-5.2
7.9	2.8	32.5	+1.2
11.3	4.0	34.1	7.2
14.4	5.3	34.7	9.0
17.3	6.6	35.9	13.2
20.0	7.8	37.7	19.1
22.4	9.2	39.3	25.2
24.7	10.6	40.8	+30.3
26.9	-12.0		

E : 28.5% -13.0°

Water + Ammonium hydrogen sulfite (H_5NO_3S)

Vasilenko, 1948

%	f.t.	%	f.t.
9.4	-3.4	63.6	-24.8
16.8	6.0	64.4	21.7
22.7	8.7	65.0	21.0
27.5	10.2	66.3	16.7
30.9	12.2	66.4	17.0
34.9	13.8	67.9	13.8
40.3	16.6	68.4	10.0
44.5	18.9	69.5	9.2
48.5	21.5	70.7	3.3
51.3	24.2	71.2	4.0
53.2	25.0	72.3	-0.2
54.4	26.2	73.5	+4.6
57.8	29.0	73.1	5.1
59.1	-29.0	75.6	13.8
		76.6	15.7

Water + Ammonium selenite ($H_8N_2O_3Se$)

Janickis, 1934

%	f.t.	%	f.t.
45.12	-20.0	56.00	+32.0
47.18	-8.5	57.13	35.2
49.21	+1.0	59.90	43.0
51.99	14.0	62.31	50.0
54.70	25.0	69.03	70.0

Water + Ammonium tetraselenite($H_7NO_6Se_2$)

Janickis, 1934

%	f.t.	%	f.t.
60.08	-14.8	73.61	+0.1
64.58	-10.3	79.30	8.8
68.76	-5.8	85.11	18.0
		91.02	30.0

Water + Ammonium pyroselenite($H_8N_2O_5Se_2$)

Janickis, 1934

%	f.t.	%	f.t.
49.62	-15.0	82.29	+32.0
52.86	-10.0	86.23	33.0
56.84	0.0	86.35	33.2
66.65	+15.0	86.43	34.0
69.50	20.0	87.23	45.1
73.24	25.0	88.78	57.2
79.74	+30.0	90.56	70.1

(3+1)

Water + Ammonium sulfate ($H_8N_2O_4S$)

Heterogeneous equilibria

Tammann, 1885

t	p				
	0%	13.93%	32.89%	33.20%	40.91%
31.97	35.6	34.6	33.9	33.7	32.1
37.47	48.3	47.1	44.7	44.7	43.6
41.11	58.7	56.5	54.0	53.7	52.6
43.35	66.0	-	60.7	60.6	59.9
46.03	75.8	73.5	70.0	69.9	68.2
49.26	89.2	85.6	81.8	81.9	79.9
51.98	102.0	98.8	93.9	94.0	91.7
54.88	117.4	113.2	107.8	107.8	105.0
57.60	133.6	129.0	122.3	121.8	118.9
60.85	155.3	150.3	142.6	142.7	139.1
63.14	172.6	166.5	158.2	158.6	155.1
66.91	204.3	197.6	187.3	187.2	183.4
70.20	235.8	227.4	216.1	216.6	211.4
72.71	262.6	253.7	241.6	241.1	236.1
74.32	281.2	271.8	258.6	258.4	253.2
76.28	205.3	295.4	281.2	281.3	274.9
79.22	344.4	333.9	316.7	317.3	309.9
81.20	373.1	360.6	343.1	343.7	337.1
83.07	402.0	385.9	370.0	369.8	362.2
85.44	441.3	426.7	407.1	407.4	398.2
87.75	482.7	467.2	445.7	446.0	436.5
90.86	543.5	527.0	501.6	502.5	491.5
93.04	589.6	569.7	543.2	544.2	531.6
94.82	630.0	609.0	580.9	581.0	568.5
97.07	683.9	659.9	630.5	629.9	617.1
100.09	762.3	738.0	704.8	704.7	691.5

%	p	%	p
	100°		
4.92	751.6	35.55	662.9
9.66	742.0	38.08	650.9
17.03	723.4	42.57	627.4
23.64	705.6	44.15	619.0
30.32	684.1		

Adams and Merz, 1929

t	p	t	p
	sat.sol.		
10	7.29	30	25.22
15	10.16	40	43.32
20	14.22	50	71.93
25	19.50		

Gerlach, 1886

%	b.t.	%	b.t.	%	b.t.
0	100	30.65	103	46.10	106
7.24	100.5	33.81	103.5	48.00	106.5
13.34	101	36.71	104	49.78	107
18.57	101.5	39.28	104.5	51.43	107.5
23.14	102	41.79	105	52.95	108
27.12	102.5	44.02	105.5	53.55	108.2

Buchanan, 1899

%	b.t.	%	b.t.
	767.15 mm		
51.04	108.09	40.96	105.22
50.50	107.80	38.71	104.73
48.47	107.21	36.12	104.23
46.80	106.70	32.24	103.74
44.93	106.21	0	100.28
43.06	105.72		
	743.9 mm		
51.10 satd	107.03	27.30	101.93
49.88	106.79	23.18	101.42
44.96	105.37	21.25	101.22
41.30	104.46	19.32	101.02
36.57	103.45	17.12	100.82
33.74	102.94	14.87	100.62
30.80	102.44	0	99.40
	620.33 mm		
50.58	101.79	38.80	98.75
51.59	101.58	32.78	97.74
47.26	100.77	25.95	96.73
43.31	99.76	0	94.41
	616.35 mm		
50.46	101.70	45.54	100.17
52.56	101.66	0	94.24
48.91	101.18		
	549.36 mm		
50.22	98.40	41.41	96.05
53.79	98.31	36.39	95.03
45.61	97.06	0	91.16
	unsatd.		
50.03	98.54	37.79	95.45
50.22	98.28	31.34	94.34
46.51	97.47	24.35	93.43
42.54	96.46	0	91.30

Johnston, 1907

%	b.t.	N	b.t.
0.944	100.081	0.048	100.039
5.04	100.398	.092	100.071
24.8	102.132	.168	100.103
31.4	103.014	.236	100.138
38.8	104.298	.294	100.163
39.9	104.576	.374	100.191
41.0	104.979	.436	100.236
42.1	105.317	.518	100.275
43.3	105.374	.612	100.321
44.1	105.608		
47.2	105.822		
49.2	106.258		

Mulder, 1866

%	f.t.	%	f.t.
41.35	0	46.61	57.5
42.30	10	47.31	66.25
42.40	13.5	48.69	78.5
43.50	26	48.69	79
45.11	44.5	50.58	99
45.59	47.25	50.48	99.7
46.41	55.3	51.80	108.9 (b.t.)

de Coppet, 1872

%	f.t.	%	f.t.
9.09	- 2.8	33.33	-14.4
16.67	- 5.45	35.48	-16.2
23.08	- 8.2	37.50	-18.0
28.57	-11.1	39.32	-20.4

Rüdorff, 1872

%	f.t.	%	f.t.
3.85	- 1.10	16.67	- 5.20
7.41	- 2.30	19.35	- 6.30
9.09	- 2.80	23.08	- 7.90
13.79	- 4.20	26.47	- 9.70

Guthrie, 1876

%	f.t.	%	f.t.
10	- 2.6	41.7	-17.0 E
20	- 6.0	41.9	0.0
28.6	-10.8	43.2	+19.0
40	-16.0		

Bodländer, 1891

%	f.t.
42.38	9
42.62	15

Jones, 1904 and Jones and Getman, 1904

M	f.t.	M	f.t.
0.05	-0.024	0.50	-1.969
0.10	-0.469	1.00	-3.686
0.20	-0.818	1.40	-5.133

de Waal, 1910

%	f.t.
41.4	0
44.3	30
47.81	70

Rodebush, 1918

%	f.t.	%	f.t.
22.40	-7.10	34.47	-13.99
24.26	-7.94	37.20	-15.99
28.97	-10.15	38.86	-17.49
29.15	-10.43	39.90	-18.34 E
31.86	-12.00		

Lattey, 1923

%	f.t.
42.83	16.5
46.05	51.8

Ishikawa and Murooka, 1929 and 1933

f.t.	%	f.t.	%
-1.05	3.246	+20	43.00
-1.99	6.516	25	43.47
-3.70	12.233	30	43.87
-5.28	17.102	40	44.80
-18.50	39.75	50	45.75
-11.50	40.42	60	46.64
-6.55	40.59	70	47.54
0	41.22	80	48.47
+5	41.65	90	49.44
10	42.11	+100	50.42
15	42.52		

Benrath, Gjedebo and al., 1937

%	f.t.	%	f.t.
54.5	138	67.5	283
55.9	154	67.6	287
57.2	173	69.3	304
59.5	199	70.8	312
60.8	216	72.1	335
61.5	219	72.6	342
62.5	231	75.1	356
63.9	242	76.1	368
64.4	253	77.2	389
65.5	261	79.6	410
65.5	266		

Bergman and Sholokhovich, 1942

%	f.t.	%	f.t.
3.23	-0.9	33.33	-14.0
6.25	1.9	34.75	14.9
9.09	2.7	36.16	16.0
10.00	3.3	37.50	17.2
12.12	3.5	38.15	17.8
14.29	4.5	38.76	18.2
16.67	5.0	40.60	-11
18.91	5.7	43.00	+20
20.0	6.2	43.08	+29
30.0	-11.6		

E: 39.4% -18.85°

Vasilenko, 1948

%	f.t.	%	f.t.
4.8	-1.5	33.3	-13.8
9.1	2.8	35.5	15.0
13.0	4.2	37.5	16.8
16.7	5.4	38.7	18.8
20.0	6.7	40.8	-1.0
25.1	7.9	41.9	+9.8
25.9	9.5	42.9	20.2
28.6	10.8	43.8	31.4
31.0	11.8	44.8	42.4

Wishaw and Stokes, 1954

m_1	m_2	m_1	m_2
0.1294	0.1581	3.174	2.923
.2171	.2562	3.592	3.293
.2809	.3251	4.051	.681
.4536	.5039	.289	.883
.5682	.6179	.451	4.015
.7454	.7889	.552	.099
.9376	.9686	.691	.217
1.076	1.094	.772	.286
.380	.370	5.301	.719
.755	.696	.486	.869
2.068	.969	.596	.959
.305	2.173	.830	5.145
.739	.545		

$_1$ - Ammonium sulfate

$_2$ - Sodium chloride

Properties of phases

Schiff, 1860

%	d	%	d
	19°		
0	0.9984	27	1.1536
1	1.0041	28	.1594
2	.0099	29	.1652
3	.0156	30	.1706
4	.0214	31	.1761
5	.0271	32	.1817
6	.0329	33	.1873
7	.0387	34	.1929
8	.0444	35	.1985
9	.0510	36	.2041
10	.0558	37	.2097
11	.0615	38	.2153
12	.0673	39	.2209
13	.0730	40	.2265
14	.0788	41	.2324
15	.0845	42	.2382
16	.0903	43	.2442
17	.1018	44	.2502
18	.1075	45	.2563
19		46	.2624
20	.1131	47	.2685
21	.1189	48	.2746
22	.1247	49	.2808
23	.1305	50	.2870
24	.1363		
25	.1421		
26	.1478		

Kohlrausch, 1879

%	d
15°	
5	1.0292
10	.0581
20	.1160
30	.1730
31	.1787

Kanonnikov, 1885

%	t	d
0	20	0.99827
29.41	25	1.16770

Klein, 1886

N	d	N	d
	18°		
0	0.7937	2	1.0702
0.5	1.0184	2.5	.0856
1	.0360	3	.1031
1.5	.0523		

Röntgers and Schneider, 1886

%	d
18°	
8.74	1.0495
16.22	1.0968

Gerlach, 1889

%	d	%	d
	15°		
0	0.9992	20	1.1180
3	1.0172	30	.1763
6	.0350	40	.2341
10	.0591	sat.sol.	.2470

Bodländer, 1891

%	t	d
42.38	9	1.2439
42.62	15	1.2429

Gilbault, 1897

%	d
20°	
0	0.9982
10	1.0556
20	1.1129
30	1.1763
40.112	1.2268

Forchheimer, 1900

%	d	%	d
20°			
0	0.9982	23.01	1.1319
6.275	1.0352	32.99	.1858
10.88	.0626	40.28	.2289

Brümmer, 1902

%	d
15°	
0	0.9993
10.215	1.0586
19.871	.1142
29.802	.1713
38.825	.2254

Chéneveau, 1907

%	d	%	d
19°		15°	
0	0.9984	38.35	1.2196
6.46	1.0369		
12.54	.0723		
15.43	.0889		
18.24	.1051		
23.61	.1359		
28.64	.1655		

Dixon and Taylor, 1910

M	t	d
0	16	0.9990
8.158	17	1.2259
8.292	16	1;2267

Wiener, 1911

c	d
20°	
6.65	1.039
13.3	.077
26.6	.138
39.9	.195
53.2	.248

Lunge and Köhler, 1912

%	d	%	d
15°			
0	0.9991	26	1.1486
1	1.0048	27	.1544
2	.0106	28	.1602
3	.0163	29	.1660
4	.0221	30	.1714
5	.0278	31	.1770
6	.0336	32	.1826
7	.0394	33	.1882
8	.0451	34	.1938
9	.0509	35	.1993
10	.0566	36	.2049
11	.0623	37	.2105
12	.0681	38	.2161
13	.0738	39	.2217
14	.0796	40	.2273
15	.0853	41	.2332
16	.0910	42	.2391
17	.0967	43	.2451
18	.1025	44	.2511
19	.1082	45	.2572
20	.1139	46	.2633
21	.1197	47	.2694
22	.1255	48	.2755
23	.1313	49	.2817
24	.1371	50	.2879
25	.1429		

Pulvermacher, 1920

N	d	N	d
25°			
0.489	1.0158	4.894	1.1593
0.979	.0336	5.873	.1851
1.958	.0682	6.851	.2119
2.936	.1000	7.830	.2358
3.915	.1302		

Manchot, Jahrstorfer and Zepter, 1924

c	d
25°	
17.786	1.0896
18.158	.0911
28.807	.1393
30.464	.1501

Ishikawa and Murooka, 1929 and 1933

%	t	d
41.22	0	1.242
41.65	5	.242
42.11	10	.243
42.52	15	.244
43.00	20	.245
43.47	25	.246
43.87	30	.247
44.80	40	.248
45.75	50	.248
46.64	60	.249
47.52	70	.250
48.47	80	.251
49.44	90	.253
50.42	100	.257

Gibson, 1934

mol %	d	mol %	d
	25°		
0	0.9970	20	1.1136
6.20	1.0336	25	.1421
10	1.0559	30	.1702
14	1.0791	35	.1980
15	1.0850	40	.2257

Okazaki, 1935

%	d
28°	
8.87	1.0482
16.94	.0950
25.63	.1445
32.27	.1816
40.30	.2262

Guillaume, 1946

%	t	d
8.4	20	1.0481
15.7	20	.092
41.2	10.5	.238

Schmidt, 1859

d	π
18°	
1.157	30.8
1.178	25.2

Röntgers and Schneider, 1886

%	π (relative)
17.8°	
8.74	0.849
16.22	0.732

Gilbault, 1897

%	π (1-300 atm.)
20°	
0	44.37
10	39.58
20	34.79
30	30.06
40.112	25.22

Gibson, 1934

mol %	π (1-1000 bars)	mol %	π (1-1000 bars)
	25°		
0	39.46	20	33.54
6.20	36.82	25	31.25
10	35.40	30	30.22
14	34.03	35	29.74
15	33.67	40	29.17

de Lannoy, 1895

t	relative volume 4%	12%	20%	50%
0	1.00000	1.00000	1.00000	1.00000
10	.00100	.00200	.00254	.00281
20	.00280	.00458	.00544	.00573
30	.00570	.00771	.00877	.00880
40	.00928	.01143	.01646	.01196
50	.01340	.01560	.02073	.01530
60	.01831	.02021	.02540	.01878
70	.02371	.02525	.03040	.02248
80	.02972	.03073	.03532	.02633
90	-	.03660	.04144	.03040
100	-	-	-	.03442

Viscosity and surface tension

Pulvermacher, 1920

N	η(water=1)	N	η(water=1)
25°			
0.489	1.055	4.894	1.766
0.979	.116	5.873	2.049
1.958	.236	6.851	2.342
2.936	.386	7.830	2.718
3.915	.552		

Brümmer, 1902

%	σ	%	σ
15°			
0	74.92	29.802	79.90
10.215	78.17	38.825	83.07
19.871	79.30		

Forch, 1905

N	t	σ	N	t	σ
0	15	73.26	2.135	15.3	79.42
0.881	15.1	77.91	3.180	15.4	80.76
1.061	14.9	78.18	4.100	15.8	81.96
1.274	15.2	78.36	5.285	15.0	84.06

Optical and electrical properties

Kanonnikov, 1885

%	t	n H_α	n D	n H_β
0	20	1.33130	1.33310	1.33738
29.41	25	1.375656	1.377781	1.38299

Walter, 1889

%	n_D
15°	
0	1.3334
4.38	.3402
8.97	.3473
20.90	.3656
43.30	.3983

Jones, 1904; Jones and Getman, 1904

M	n_D	M	n_D
0°			
0.05	1.32593	0.50	1.33338
0.10	.32711	1.00	.34131
0.20	.32829	1.40	.34807

Chéneveau, 1907

%	n_D	%	n_D
19°			
0	1.3331	18.24	1.3615
6.46	.3435	23.61	.3698
12.54	.3530	28.64	.3772
15.43	.3574		

%	n C	n D	n Tl	n F	n G'
15°					
38.35	1.38961	1.39170	1.39411	1.39644	1.40011

Dixon and Taylor, 1910

M	t	n_D
0	16	1.33329
8.158	17	.39246
8.292	16	.39275

Pulvermacher, 1920

N	n_D	N	n_D
25°			
0.489	1.3385	4.894	1.3765
0.979	.3431	5.873	.3831
1.958	.3524	6.851	.3900
2.936	.3612	7.830	.3958
3.915	.3693		

Guillaume, 1946

%	t	n_{5780}
8.4	20	1.3470
15.7	20	.3597
41.2	19.5	.3968

Guillaume, 1946

%	t	$(\alpha)^{5780}_{magn.}.10^6$
8.4	20	3.870
15.7	20	.782
41.2	19.5	.455

In radians, gauss, centim.

Forchheimer, 1900

%	(α)magn.	%	(α)magn.
	20°		
6.275	0.683	32.99	0.675
10.88	0.675	40.28	0.679
23.01	0.663		

Okazaki, 1935

%	Verdet's constant (3441 Å)
28°	
8.87	0.04496
16.94	.04546
25.63	.04611
32.27	.04679
40.30	.04702

Berggren, 1877

%	t	κ	%	t	κ
1.96	8.5	193	10.71	7	808
2.15	8	210	13.04	8	993
2.91	7.8	266	15.21	7.3	1111
3.84	7.7	333	16.66	7.2	1165
5.66	7.7	456	20.00	6	1323
6.54	7.8	523	23.07	8.3	1547
7.41	8	595	28.57	8.3	1742
8.25	7.3	654	33.33	7.8	1858
9.09	7.8	733	37.11	8.3	1912
9.91	8.3	776	40.50	8.5	1929

Kohlrausch, 1879

%	κ	$\tau.10^4$
	18°	
5	549	216
10	1007	204
20	1772	194
30	2283	192
31	2311	192

Klein, 1886

N	κ 18°	κ 26°	$\tau.10^4$
0.5	359.7	422.8	218
1	648.7	756.5	209
1.5	895.9	1043.6	206
2	1143.1	1327.7	202
2.5	1346.8	1560.6	198
3	1551.6	1793.8	195

Jones, 1904 and Jones and Getman, 1904

M	λ	M	λ
	0°		
0.05	100.60	0.50	80.03
.10	95.84	1.00	72.55
.20	86.15	1.40	69.30

Johnston, 1907

N	λ	N	λ
	100°		
0.0005	484.9	0.50	225.8
.001	485.8	1.00	191.6
.002	431.4	2.00	149.3
.02	396.7	4.00	128.1
.05	348.8	6.25	99.7
.10	295.4	7.25	95.8
.20	255.0	8.47	80.5

Marignac, 1876

%	U	%	U
	19-51°		
3.54	0.9633	22.62	0.8030
6.79	.9330	32.74	.7385
12.73	.8789		

Water + Ammonium acid sulfate (H_5NO_4S)

Tammann, 1885

%	p	%	p
	100°		
8.51	741.4	35.40	647.4
15.44	723.1	36.28	643.1
21.95	702.8	50.12	563.5
28.61	677.4	58.55	502.5

Grünert, 1925

t	η			
	3.5N	1.75N	0.875N	0.4375N
20	1762	1301	1138	1068
40	1155	860	751	704
60	833	618	540	504
80	643	478	419	391

Herz and Knaebel, 1928

M	σ			
	20°	40°	60°	80°
3.500	77.92	74.42	71.77	69.32
1.750	74.91	72.49	69.15	67.05
0.875	73.96	70.95	67.93	64.90
0.437	73.11	69.83	66.13	63.44

Gillespie and Wasif, 1953

M	κ	M	κ
	25°		
0.0268	108.5	0.3214	326.9
.0417	115.0	0.6152	500.0
.0600	130.0	1.0384	677.6
.0825	145.0	.2984	760.3
.1066	168.0	.4836	811.4
.1199	175.8	.6660	860.2
.1381	196.0	.9002	906.1
.1773	230.0	.9990	922.6

Water + Ammonium dithionate ($H_8N_2O_6S_2$)

Tammann, 1885

%	p	%	p
	100°		
8.33	747.9	35.32	676.3
12.61	738.3	39.74	662.8
23.28	715.6	43.05	643.8
27.75	702.9		

De Baat, 1926

%	f.t.
57.05	0
60.14	10
62.43	20
64.60	30

Water + Ammonium trithionate ($H_8N_2O_6S_3$)

Kurtenacker and Laszlo, 1938

%	f.t.
53.0	0
56.0	20
58.2	30

Water + Ammonium tetrathionate ($H_8N_2O_6S_4$)

Kurtenacker and Laszlo,1938

%	f.t.
51.0	0
54.2	20
56.2	30

Water + Ammonium sulfamate ($N_2H_6O_3S$)

Schmelzle and Westfall, 1944

N	d	N	d
	25°		
0.1185	1.0030	1.8263	1.0902
0.2074	.0091	1.9127	.0946
0.2958	.0125	3.4105	.1659
0.4765	.0218	5.0832	.2435
0.6863	.0310	6.3656	.3011
0.8254	.0404	7.1813	.3402
1.0245	.0504	8.1696	.3830
1.2778	.0632		

Schmelzle and Westfall, 1944

N	η (H_2O=1)	N	η (H_2O=1)
	25°		
0.1185	1.0054	1.8263	1.1198
0.2074	1.0054	1.9127	1.1226
0.2958	1.0185	3.4105	1.3136
0.4765	1.0244	5.0832	1.6708
0.6863	1.0334	6.3656	2.1874
0.8254	1.0426	7.1813	2.7543
1.0245	1.0513	8.1696	3.8298
1.2778	1.0734		

Water + Ammonium selenate ($H_8N_2O_4Se$)

Tutton, 1906

%	f.t.
53.97	7
62.12	59
66.32	100

%	spontaneous crystallization
55.42	1
55.90	16.2
56.56	19.5
58.76	25

Water + Ammonium thioantimonate ($H_{12}N_3S_4Sb$)

Donk, 1908

%	f.t.	%	f.t.	
9.9	-1.9	41.6	-13.5	E
19.0	-4.5	41.6	0	(4+1)
26.0	-6.5	43.2	+10	
40.1	-12.1	54.5	+30	

Water + Ammoniium fluoborate (BF_4H_4N)

Tammann, 1885

%	p	%	p
	100°		
9.25	739.2	21.24	704.1
12.23	728.9	21.40	703.7
12.52	727.9	21.59	700.3
15.79	719.5	31.38	657.3

Yatlov and Pinayevskaya, 1945

%	f.t.		%	f.t.
3.00	-1.0		30.60	+50.0
5.00	-1.5		40.30	75.0
9.79	-2.7	E	49.73	100.0
10.87	0.0		53.20	108.5
20.53	+25.0			

Water + Ammonium fluosilicate ($F_6H_8N_2Si$)

Tammann, 1885

%	p
	100°
9.31	746.7
17.11	734.1
21.81	724.9
28.14	712.8
30.65	706.5

Yatlov and Pinayevskaya, 1945

%	f.t.I*	%	f.t.II
5	-1.3	13.91	10.0
10.23	-1.2	14.69	12.0
10.94	0.0	14.77	13.0
14.01	+10.0	15.53	14.0
14.63	12.0	15.60	15.0
14.60	13.0	18.32	25.0
15.46	14.0	26.15	50.0
15.63	15.0	32.83	75.0
18.75	25.0	38.18	102.1
26.14	50.0		
32.35	75.0		
37.90	100.0		

* polymorphic forms of fluosilicate

Simpson and Glocker, 1953

%	f.t.	%	f.t.
11.58	1.7	24.20	43.3
14.10	10.0	26.49	51.7
16.74	18.3	28.75	60.0
19.34	26.7	30.91	68.3
21.85	35.0		

Water + Hydrazinium chloride (N_2H_5Cl)

Seward, 1955

mol%	d	η	λ
	25°		
0.35	1.001	899	107.2
2.85	.035	924	87.3
8.07	.092	1074	69.8
11.29	.120	1196	60.2
15.03	.149	1390	50.5
20.50	.182	1920	37.6
28.20	.224	2900	26.3
	95°		
0.35	0.968	304	284.0
2.85	0.998	340	208.4
8.07	1.052	415	155.6
11.29	.082	490	131.8
15.03	.110	560	111.5
20.50	.149	703	88.30
28.20	.186	989	64.07
38.40	.227	1550	43.90
50.65	.266	2683	28.00
59.97	.293	4008	19.50
69.80	.313	6250	13.37
81.30	.334	10380	8.65
91.50	.352	16220	5.78
100.00	.363	23440	4.10

Schiff and Monsacchi, 1896 and 1897

%	d	%	d
	20°		
0	0.9982	15	1.0675
5	1.0206	20	1.0923
10	1.0436	25	1.1183

27.2% f.t. = 23°

Water + Hydrazine nitrate ($N_3H_5O_3$)

Sommer, 1914

%	f.t.	%	f.t.
66.63	10	85.86	40.02
68.47	15	88.06	45.02
72.70	20.01	91.18	50.01
76.61	25.01	93.58	55.01
80.09	30.01	95.51	60.02
83.06	35.01		

Semishin, 1943

mol%	f.t.	E	mol%	f.t.	E
0.0	0	-	47.3	+36.0	-9.1
5.1	-5.0	-	49.8	38.9	-
7.4	-6.7	-9.1	51.9	41.5	-9.1
11.1	-7.0	-9.1	55.1	44.2	-
17.4	+0.8	-9.1	60.6	48.7	-
20.6	5.4	-	66.2	51.8	-
26.1	11.9	-9.3	71.0	54.8	-
31.6	18.1	-	74.5	57.3	-
33.3	21.2	-9.1	80.0	60.2	-
36.2	23.8	-9.2	84.9	62.9	-
38.8	26.4	-	89.2	65.6	-
41.3	29.6	-	93.0	67.8	-
44.3	+32.6	(-9.8)	100.0	70.8	-

Seward, 1955

mol%	d	η	λ
	25°		
0.23	1.002	895	103.6
0.98	.018	892	88.1
2.10	.040	908	79.8
4.25	.083	951	67.3
9.23	.163	1157	50.4
15.8	.242	1580	36.34
27.2	.340	2754	22.10
38.7	.403	4437	14.55
	75°		
2.1	1.017	404	160.4
4.8	.063	447	130.9
7.5	.113	512	108.3
11.2	.160	606	88.83
15.9	.215	763	71.05
22.9	.277	1043	53.78
30.7	.334	1415	40.40
43.3	.402	2280	27.02
63.5	.472	4300	15.39
78.2	.510	6500	10.42
100.0	.549	11510	6.12

Water + Hydrazine perchlorate ($ClH_5N_2O_4$)

Carlson, 1910

c	%	t	d
41.72	33.00	18	1.264
66.90	48.03	35	1.391

Water + Hydrazine sulfate ($H_6N_2O_4S$)

Benrath, 1942

%	f.t.	%	f.t.
14	94	45	163
20	108	50	174
25	118	55	186
30	129	60	198
35	143	65	208
40	152	70	216

Water + Hydroxylamin hydrochloride (ClH_4NO)

Tammann, 1886

%	p
100°	
9.48	725.8
14.39	705.2
16.53	694.4
25.50	650.5

Mathieu, 1949

%	f.t.	%	f.t.
1.072	-0.57	45.50	+17
1.725	-0.93	48.55	25.1
5.099	-2.72	57.314	48.7
9.482	-5.33	58.983	55
15.431	-9.40	60.709	59
24.960	-17.10	62.074	60.6
29.380	-20.95	65.377	68
31.446	-22.92	74.224	89.6
32.957	-22.60	78.061	98.4
39.700	-0.90	100	150.5

%	f.t.				
	1 atm	250 atm	500 atm	750 atm	1000atm
45	15.28	16.14	17.14	18.38	19.77
50	29.43	30.34	31.51	32.88	34.53
55	42.81	43.81	45.08	46.64	48.46
60	55.57	56.65	58.06	59.78	61.84
65	67.83	68.99	70.53	72.44	74.72
70	79.73	81.01	82.68	84.76	87.27

%	d
17°	
9.48	1.0410
24.96	1.1117

Schiff and Monsacchi, 1896 and 1897

%	d	%	d
17°			
0	0.9988	14	1.0616
3.5	1.0147	20	.0888
5	.0214	28	.1260
7	.0303	40	.1852
10	.0437		

45.57% f.t. = 17°

V. NON-METALLIC INORGANIC SUBSTANCES + ORGANIC SUBSTANCES.

LXIX. ELEMENTS + ORGANIC COMPOUNDS.

Hydrogen (H_2) + Methane (CH_4)

Shtekkel and Tsin, 1939 (fig.)

P	mol% L	mol% V	P	mol% L	mol% V
1	100	100	40	95	4
5	99.5	14	50	92	4
10	99	10	60	91	4
20	98	6	90	90.5	4
30	97	4			

Trautz and Sorg, 1931

%	η 20°	η 100°	η 200°	η 258°
0.00	8.76	10.325	12.125	12.960
7.77	9.55	11.32	13.375	14.230
39.78	10.86	13.06	15.510	16.615
51.45	10.98	13.28	15.865	16.990
71.92	10.99	13.37	16.020	17.170
100.00	10.87	13.31	16.030	17.245

Adzumi, 1937

%	η 20°	η 60°	η 100°
0.00	9.24	10.08	10.90
20.83	10.52	11.60	12.71
30.09	10.74	11.90	13.21
49.04	11.10	12.34	13.59
68.95	11.26	12.54	13.80
100.00	11.25	12.55	13.80

Hydrogen (H_2) + Ethane (C_2H_6)

Williams, 1954 (fig.)

P Kg	mol % L	mol % V	P Kg	mol % L	mol % V
		-170°			
28	99.5	-	280	97	-
70	99	-	420	96	-
165	98	-	560	95	-
		-129°			
14	99.5	1	280	92.5	0.5
70	98	0.2	500	88	1
135	96	0.2	700	84.5	1.5
		-87°			
14	99	8.5	280	86.5	2.5
42	98	4	500	78.5	3
70	96.5	2.5	700	71	4
140	97	2			
		-45.5°			
15	-	48	210	80.5	9
20	99.5	37	350	75	10
63	96	13	700	51	16
140	90	10			
		-18°			
35	98	52.5	245	76.5	21
63	95	35.5	350	63.5	23.5
140	87.5	23	440	45	39
		+10°			
35	99.5	-	175	74.5	47.5
85	92	66	195	64	66
140	84				

t	P Kg 100%	P Kg 98mol%	P Kg 95mol%	P Kg 90mol%	P Kg 85mol%
-180	-	210	-	-	-
-170	-	160	560	-	-
-150	-	100	280	700	-
-130	-	63	170	390	650
-100	-	45	120	250	385
-73	-	36	85	175	280
-45	-	34	71	140	210
-33	-	33.5	70	130	190
-18	18	33.5	66	120	165
+10	32	40	68	105	130
23	35	50	70	100	120
30	50	-	-	-	-

t	P Kg 70mol%		P Kg 50mol%		crit.curve
-73	580		-		-
-45	410		700		-
-33	350	(14)*	590	(25)	630
-18	290	(20)	420	(35)	450
+10	210	(50)	210	(100)	210
23	-	(105)	-		105
30	-		-		50

* figures in brackets are dew point pressures.

Trautz and Sorg, 1931

%	η 20°	100°	200°	250°
0.00	8.76	10.325	12.125	12.96
14.32	9.95	11.940	14.175	15.17
14.85	9.93	11.890	14.120	15.11
49.10	9.88	12.160	14.690	15.86
55.00	9.775	12.080	14.665	15.83
100.00	9.09	11.420	14.085	15.26

Adzumi, 1937

%	η 20°	40°	60°	80°	100°
0.00	9.24	9.65	10.08	10.48	10.90
16.31	10.13	10.71	11.26	11.83	12.40
33.49	10.13	10.77	11.38	11.96	12.55
49.16	9.98	10.62	11.24	11.81	12.40
62.84	9.80	10.44	11.04	11.63	12.24
100.00	9.28	9.91	10.51	11.09	11.71

Hydrogen (H_2) + Propane (C_3H_8)

Burriss, Hsu and al., 1953

P Kg	mol % L	V	P Kg	mol % L	V
		4.5°			
25.89	-	25.34	251.02	-	6.46
45.45	96.22	15.98	288.49	78.70	6.62
68.93	94.90	11.86	329.00	-	6.56
114.25	91.28	8.67	424.30	69.92	6.88
181.76	86.56	7.28	507.00	64.95	7.41
		37.8°			
26.74	98.58	58.03	315.49	69.17	15.95
45.88	96.37	38.18	368.95	64.05	16.61
97.94	90.78	22.72	436.69	56.81	18.25
126.86	87.83	19.75	506.48	48.80	21.72
189.91	81.31	16.83	536.48	42.61	26.16
		71°			
40.09	97.98	78.99	186.33	73.42	40.48
59.43	94.70	62.63	197.30	71.36	40.56
82.04	91.10	52.20	228.16	63.39	44.88
119.82	84.79	44.16	232.37	60.74	47.12
153.70	79.22	40.92			
		87.8°			
50.58	96.98	87.18	97.63	84.80	71.15
70.52	92.26	76.28	103.22	82.36	71.58
89.21	87.71	72.05	107.29	79.31	73.29

critical curve

70	93.3	89.0	281	66.8	48.5
96	90.0	80.0	352	59.6	43.1
111	87.8	75.6	400	54.4	40.0
140	83.8	67.2	422	52.2	38.9
183	78.3	60.0	492	44.6	35.6
211	74.9	56.1	554	37.8	33.3
241	71.1	52.3	563	37.1	33.1

Williams and Katz, 1954 (fig.)

P Kg	mol % L	V	P Kg	mol % L	V
		-184°			
175	99	-	490	98	-
280	98.5	-	700	97.5	-
		-157°			
28	99.5	-	280	97	-
70	99	-	700	94	-
		-129°			
28	99	-	420	92.5	-
70	98.5	-	700	89.5	-
210	95.5	-			
		-101°			
14	-	1	350	90	0.2
28	98.5	0.5	700	83	1
140	95.5	0			
		-73°			
10	-	1.5	350	86.5	0.5
28	98.4	1	700	77	1.5
140	94	0.5			
		-45°			
14	-	7.5	350	83	1.5
35	98	3.5	700	71	2.5
140	92.5	1.5			
		-18°			
14	-	27.5	280	82.5	3.5
28	98	12	500	71	4.5
70	95	6	700	62	5.5
140	90.5	4.5			
		+10°			
14	-	50	280	78	7.5
28	98	28	500	64	8.5
140	88.5	9.5	700	53	10.5
		+24°			
17.5	99	-	280	75	11
21	98.5	52	490	58	12.5
42	96.5	30	630	47	16.5
140	87	13			

t	P Kg	t	P Kg
	100 %		
+ 10	5	+ 90	35
+ 38	10	+100	45
+ 65	25		
	99 mol %		
-184	200	- 18	16
-157	65	+ 10	15
-129	38	+ 38	20
-101	28	+ 65	32
- 73	20	+ 90	38
- 45	17		
	98 mol %		
-184	470	- 18	30
-157	160	+ 10	28
-129	85	+ 38	28
-101	60	+ 65	35
- 73	50	+ 90	40
- 45	36		
	96 mol %		
-157	410	- 18	60
-129	195	+ 10	50
-101	120	+ 38	48
- 73	95	+ 65	50
- 45	75	+ 90	50
	94 mol %		
-157	700	- 18	90
-129	310	+ 10	75
-101	195	+ 38	68
- 73	145	+ 65	60
- 45	110	+ 90	58
	90 mol %		
-129	630	+ 10	125
-101	350	+ 38	110
- 73	260	+ 65	90
- 45	190	+ 90	85
- 18	150		
	80 mol %		
- 73	590	+ 10	250
- 45	425	+ 38	200
- 18	320	+ 65	160
	70 mol %		
- 45	680	+ 38	300
- 18	525	+ 65	220
+ 10	360		
	60 mol %		
+ 10	560	+ 65	260
+ 38	400		
	50 mol %		
+ 10	690 (12)[a]	+ 65	285 (70)
+ 38	500 (30)		
	critical curve		
+ 38	550	+ 90	85
+ 65	280	+100	45

a) figures in brackets are dew point pressures.

Klemenc and Remi, 1923

%	η	%	η
	0°		
0.00	8.601	32.71	9.2
3.13	8.90	51.82	8.7
7.85	9.39	69.78	8.1
8.91	9.50	80.37	7.7
15.00	9.70	100.00	7.52
21.18	9.60		

Hydrogen (H_2) + Butane (C_4H_{10})

Aroyan and Katz, 1951

P Kg	mol % L	mol % V	P Kg	mol % L	mol % V
		23.9°			
22.9	92.1	13.1	316.2	78.4	2.6
79.4	93.8	4.6	533.5	65.9	2.3
106.5	92.0	3.6			
		4.4°			
21.9	98.4	6.9	298.5	81.8	1.6
55.7	96.4	3.3	552	69.8	-
168.1	88.9	1.7			
		-12.2°			
21.6	98.35	4.2	295	83.8	1.1
51.7	96	2.1	511.8	74	1.0
169.5	89.5	1.1	534	73.2	1.2
279.6	83.7	1.1	545	72.6	1.2
		-28.9°			
22.2	98.5	2.1	294	85.55	0.6
29.6	94.6	1.0	524	77.1	0.5
139	92.6	0.7			
		-45.6°			
28.2	98.3	0.8	267	88.1	0.4
56.2	97.0	0.6	450	82.0	0.3
143	93.0	0.4			
		-73.3°			
23.5	98.7	0.2	198	92.9	0.2
56.6	97.6	0.2	287	90.4	0.4
102	96.0	0.2	492	75.1	0.15
		-101°			
21.1	99.0	0	132	96.2	-
58.6	98.0	0	299	92.7	0
132	96.3	-	519	88.4	0
		-130°			
38.4	99.0	0	292	94.7	-
144	97.0	0	502	93.3	0
292	95.0	-			

Hydrogen (H_2) + Isobutane (C_4H_{10})

Dean and Tooke, 1946

P Kg	mol % L	mol % V	P Kg	mol % L	mol % V
		37.8°			
211	82.1	4.49	106	91.21	5.77
176	85.8	4.29	70	95.08	7.09
141	88.88	4.79	35	97.25	13.69
		65.6°			
211	80.3	9.82	106	91.53	13.3
176	83.1	12.1	70	93.24	17.6
141	87.1	11.3	35	97.26	30.3
		93.3°			
211	75.3	43.5	106 106	89.1	28.1
176	80.8	24.2	70	92.91	38.5
141	84.4	24.2	35	97.75	59.3
		121°			
141[a]	75.6	75.2	88	88.3	59.4
106	83.8	57.6	70	91.80	63

a) single phase region .

Hydrogen (H_2) + 2,2,4-Trimethylpentane (C_8H_{18})

Dean and Took, 1946

P Kg	mol% L	mol% V	P Kg	mol% L	mol% V
		37.8°			
353.3	80.2	0.148	71.7	94.83	0.236
281.9	83.4	.160	37.0	97.28	0.398
212.7	86.8	.162	12.3	99.10	1.050
142.0	90.29	.169			
		93.3°			
355.4	74.2	0.64	106.9	90.26	1.12
281.9	79.2	.70	72.8	92.90	1.45
212.7	82.6	.78	35.9	95.96	2.35
145.5	87.0	.90	17.5	98.35	5.10
		150.3°			
356.1	64.5	2.52	108.3	87.10	4.89
280.5	70.8	2.75	71.7	90.90	6.66
212.7	76.2	3.24	38.7	96.32	10.31
143.8	83.3	3.99	13.0	98.78	31.03

Hydrogen (H_2) + Dodecanes (isomers) ($C_{12}H_{26}$)

Dean and Tooke, 1946

P Kg	mol% L	mol% V	P Kg	mol% L	mol% V
		93.3°			
354.0	74.6	0.070	142.3	87.60	0.071
283.3	78.5	.070	71.7	93.16	.100
213.4	83.1	.068	37.0	96.27	.169
		149°			
354.0	70.1	0.348	142.3	85.30	0.480
283.3	75.0	.367	71.7	92.11	.773
213.4	80.0	.398	37.0	95.58	1.320

Hydrogen (H_2) + Ethylene (C_2H_4)

Likhter and Tikhonovich, 1939

P	mol% L	mol% V	P	mol% L	mol% V
		-85°			
2.64	100	100	42.7	97.25	14.3
14.4	99.3	23.2	52.2	96.4	9.8
29.5	98.3	14.4	79.0	94.8	7.0
33.4	97.8	12.6			
		-95°			
1.59	100	100	35.2	98.1	7.2
11.0	99.2	19.4	38.4	97.68	8.15
17.6	98.97	14.8	46.1	97.4	7.8
18.1	99.0	14.9	57.0	96.6	6.6
31.8	98.04	8.24	74.2	95.3	5.8
		-105°			
0.93	100	100	34.8	98.45	5.3
18.6	98.90	10.2	41.9	97.78	6.6
23.1	98.80	8.3	48.8	97.60	4.2
32.6	98.20	6.5	58.1	96.85	4.3
34.3	98.60	6.9			
		-115°			
0.49	100	100	33.9	98.57	4.2
10.0	99.65	9.4	41.2	98.08	3.6
16.4	99.40	7.3	50.3	97.55	4.3
24.8	98.97	5.5	59.5	97.20	4.1
27.3	98.90	5.3	72.2	96.60	2.3

Williams and Katz, 1954

P Kg	mol% L	mol% V	P Kg	mol% L	mol% V
		-157°			
42	99	-	350	96	-
120	98	-	700	94	-
		-115°			
17.5	99	4	340	89	2
56	98	2	700	82	3
140	95	1.5			
		-73°			
17.5	100	32	280	84	7.5
50	97	14.5	430	76	9
140	91.5	8.5	700	56	12
		-45.5°			
14	99.8	-	210	83	17.5
21	99	-	280	76.5	18
28	98.5	52	420	62	22
42	97.5	38.5	510	44	35
70	95	27			
		-31.5°			
21	100	-	210	79	28
50	97	52	330	63	32
85	94	40	365	46	44
140	87	29.5			
		-18°			
28	100	-	175	80	42
70	94.5	56	230	68	44
115	89	44	250	56	56

fig.

t	P Kg 100%	98mol%	95mol%	90mol%
-157	-	120	500	-
-129	-	70	230	415
-101	-	42	130	260
-73	-	35	85	175
-45	10	35	69	125
-18	28	42	70	105
0	-	52	77	90
+10	55	55	55	55
	85mol%	70mol%	50mol%	crit. curve
-157	-	-	-	-
-129	-	-	-	-
-101	400	-	-	-
-73	260	550	(14)*	-
-45	185	280(18)	490(34)	520
-18	140	180(42)	245(90)	245
0	110	110	-	-
+10	55	-	-	55

* figures in brackets are dew point pressures.

Edwards and Roseveare, 1942

mol%	B_{12} = Second virial coefficient (Amagat units.10^4)
	25°
48.17	-17.7

Thomsen, 1911

%	η	%	η
	12.0 - 12.8°		
0	9.15	37.0	10.87
7.6	10.08	54.4	10.78
17.0	10.62	72.9	10.48
28.0	10.86	100.0	10.16

Trautz and Stauf, 1929

%	η				
	-78°	-40°	-1°	+20°	+55°
100	7.18	8.18	9.43	10.12	11.22
81.87	-	-	-	10.39	11.54
80.82	7.31	8.39	9.59	-	-
70.33	-	-	-	10.53	11.64
64.44	7.54	8.52	9.85	-	-
51.73	-	-	-	10.67	11.73
50.87	7.64	8.62	9.98	-	-
25.01	7.72	8.66	9.96	-	-
21.60	-	-	-	10.60	11.56
16.38	-	8.62	9.75	-	-
0	6.70	7.40	8.30	8.73	9.43
	+100°	+150°	+200°	+250°	
100	12.64	14.08	15.47	16.81	
81.87	12.91	-	-	-	
80.43	-	14.32	15.68	16.94	
72.01	-	14.41	15.74	16.99	
70.33	12.98	-	-	-	
51.97	-	16.63	15.88	17.09	
51.73	13.11	-	-	-	
21.14	12.78	14.09	15.29	16.27	
0	10.30	11.23	12.11	12.94	

Kornfeld and Hilferding, 1931

%	thermal conductivity .10^6
	25°
0	437
13.51	329
38.90	206
48.63	169
68.60	114.8
83.02	86.1
100.00	52.7

Hydrogen (H_2) + Propylene (C_3H_6)

Williams and Katz, 1954

P Kg	mol%(L)	P Kg	mol%(L)	P Kg	mol% L	mol% V
-156°		-115°		-73°		
42	99.5	28	99	14	-	2.5
140	99	70	98.5	20	99	2.0
280	98	140	97	70	96.5	1.5
700	96	350	93.5	140	95	1.0
		700	89.5	420	86.5	1.5
				700	80.5	2.5

P Kg	mol% L	mol% V	P Kg	mol% L	mol% V
-45°			-18°		
14	99	8.5	17	99.0	22
70	97	3	70	96.5	7.5
140	93.5	2	140	91.5	5
280	87	2	280	83.5	4
700	73	2.5	500	73.5	5
			700	65.0	6
+10°			+24°		
17	99	51.5	25	98.5	54.5
42	97.5	24.5	42	97	35
70	94.5	16.5	105	91	17.5
140	89.5	11	210	82	13.5
350	74.5	9	350	70.5	12.5
500	65	10	420	64	13
700	54	13	630	48	20

t	P Kg 100mol%	98mol%	96mol%	94mol%	90mol%
-168	-	420	-	-	-
-157	-	265	700	-	-
-129	-	110	280	445	-
-100	-	75	150	245	455
-73	-	56	110	170	300
-45	-	42	80	125	215
-18	-	35	70	100	170
+10	7	35	55	80	135
38	18	35	50	70	100
65	30	-	-	-	-
88	60	-	-	-	-
	85mol%	80mol%	70mol%	60mol%	dew point
-73	490	-			
-45	340	475	-	-	-
-18	260	350	570	-	-
+10	200	270	420	580	-
38	150	190	290	390	540
65	-	-	-	-	200
88	-	-	-	-	60

Adzumi, 1932 and 1937

%	η 100°	80°	60°	40°
0.00	10.90	10.48	10.08	9.65
8.90	12.94	12.31	11.74	11.18
24.12	12.96	12.40	11.75	11.10
48.98	12.50	11.81	11.18	10.50
73.24	11.81	11.10	10.57	9.83
100.00	10.70	10.16	9.60	9.04

Trautz and Husseini, 1934

%	η 20°	100°	200°	250°
100	8.44	10.76	13.39	14.67
92.68	8.58	10.90	13.53	14.77
83.18	8.75	11.09	13.73	14.94
76.30	8.87	11.22	13.88	15.09
64.70	9.10	11.45	14.10	15.29
48.50	9.49	11.81	14.40	15.68
36.30	9.80	12.01	14.53	15.80
25.10	9.95	12.15	14.53	15.66
17.20	9.94	12.05	14.38	15.41
10.70	9.82	11.73	13.95	14.96
0.00	8.76	10.31	12.01	12.96

Adzumi, 1937

%	rate of molecular flow (mm . cc)
20°	
0.00	0.0750
24.82	.0610
49.18	.0458
100.00	.0164

Hydrogen (H_2) + β-Butylene (C_4H_8)

Trautz and Husseini, 1934

%	η 20°	100°	200°	250°
100	7.47	9.44	11.92	13.01
92.98	7.54	9.58	12.07	13.18
77.34	7.80	9.91	12.43	13.57
64.25	8.10	10.20	12.75	13.89
51.31	8.44	10.54	13.08	14.22
36.10	8.93	11.02	13.51	14.72
20.42	9.39	12.42	13.76	14.80
18.17	9.44	11.45	13.72	14.77
12.53	9.45	11.35	13.48	14.46
0.00	8.76	10.31	12.10	12.96

Hydrogen (H_2) + Acetylene (C_2H_2)

Adzumi, 1937

%	rate of molecular flow (mm . cc)
	20°
0.00	0.0750
24.31	.0622
48.82	.0490
74.03	.0354
100.00	.0220

Trautz and Narath, 1926

%	η	%	η
	15°		
0	9.20	66.7	9.89
25	9.43	75	10.02
33.3	9.55	100	10.24
50	9.71		

Adzumi, 1937

%	η 100°	80°	60°	40°	20°
0.00	10.90	10.48	10.08	9.65	9.24
15.13	13.18	12.50	11.97	11.42	10.94
22.12	13.46	12.78	12.19	11.64	11.06
30.99	13.54	12.88	12.27	11.66	11.06
48.72	13.39	12.74	12.11	11.50	10.86
70.29	13.12	12.45	11.84	11.22	10.59
100.00	12.74	12.08	11.46	10.85	10.22

Hydrogen (H_2) + Carbon oxide (CO)

Scott, 1929

P	P V 0%	33.7mol%	48.3mol%	66.9mol%	100mol%
			25°		
1	1.09155	1.09155	1.09155	1.09155	1.09155
10	.0973	.0955	.0945	.0926	.0876
20	.1039	.1005	.0980	.0942	.0846
30	.1103	.1056	.1022	.0965	.0823
40	.11675	.1110	.1065	.0992	.0806
50	.1235	.1165	.1110	.1023	.0797
60	.1300	.1223	.1155	.1060	.0790
70	.1367	.1280	.1203	.1095	.0794
80	.1432	.1343	.1257	.1138	.0801
90	.1498	.1405	.1310	.1184	.0814
100	.1563	.1470	.1370	.1235	.0836
110	.1628	.1537	.1430	.1293	.0867
120	.1694	.1604	.1492	.1350	.0906
130	.1760	.1675	.1555	.1411	.0948
140	.1826	.1746	.1625	.1474	.0997
150	.1892	.1820	.1690	.1540	.1050
160	.1959	.1893	.1760	.1608	.1106
170	.2024	.1915	.1832	.1677	.1165

Townend and Bhatt, 1931

P	P V 0%	33.4mol%	49.8mol%	66.7mol%	100%
			0°		
1	1.0000	1.0000	1.0000	1.0000	1.0000
10	.0058	.0043	.0022	0.9995	0.9938
20	.0124	.0094	.0050	0.9992	.9880
40	.0255	.0196	.0114	1.0005	.9786
60	.0386	.0304	.0193	.0038	.9728
80	.0520	.0418	.0275	.0091	.9703
100	.0654	.0540	.0377	.0165	.9710
120	.0789	.0659	.0486	.0248	.9745
140	.0922	.0790	.0608	.0352	.9811
160	.1060	.0918	.0733	.0468	.9900
180	.1196	.1055	.0870	.0602	1.0013
200	.1332	.1195	.1016	.0747	.0152
250	.1677	.1562	.1406	.1152	.0536
300	.2025	.1954	.1829	.1618	.1126
350	.2377	.2360	.2280	.2121	.1745
400	.2732	.2781	.2743	.2644	.2423
450	.3091	.3214	.3213	.3177	.3128
500	.3450	.3657	.3675	.3699	.3840
550	.3816	.4102	.4142	.4209	.4532
600	.4183	.4550	.4620	.4725	.5242
			25°		
1	1.0915	1.0915	1.0915	1.0915	1.0915
10	.0972	.0957	.0945	.0926	.0877
20	.1034	.1012	.0984	.0950	.0846
40	.1162	.1120	.1068	.1002	.0806
60	.1292	.1235	.1164	.1069	.0792
80	.1423	.1354	.1268	.1146	.0807
100	.1556	.1480	.1376	.1239	.0838
120	.1691	.1609	.1494	.1346	.0905
140	.1827	.1746	.1623	.1462	.0992
160	.1965	.1885	.1759	.1589	.1100
180	.2105	.2029	.1900	.1727	.1230
200	.2245	.2176	.2049	.1875	.1382
250	.2600	.2563	.2444	.2278	.1820
300	.2960	.2968	.2866	.2729	.2344
350	.3320	.3388	.3308	.3214	.2933
400	.3686	.3820	.3767	.3725	.3565
450	.4049	.4255	.4235	.4250	.4239
500	.4411	.4694	.4701	.4773	.4908
550	.4767	.5129	.5159	.5298	.5580
600	.5128	.5560	.5622	.5825	.6252

Verschoyle, 1931

t	p	t	p
	100%		
-185.44	1434.5	-205.01	114.95
-188.06	1100.9	-205.03	114.86
-190.865	813.5	-207.43	70.42
-192.07	709.0	-210.815	32.99
-193.955	566.0	-212.785	19.81
-196.55	407.75	-215.70	8.88
-199.325	279.15	-218.88	3.26
-202.27	180.09	-218.87	3.25
-204.96	116.05		

%	P begin	P end	%	P begin	P end
		-185°			
100	-	2.18	40	-	187.0
90	-	46.8	30	7.7	181.9
75	-	111.4	20	12.3	162.5
60	-	163.7	15	-	122.7
50	-	183.6	10	22.8	59.5

P	% L	% V	P	% L	% V
		-185°			
181.3	54.6	29.6	55.9	86.6	9.8
166.7	59.0	22.9	55.8	87.1	10.7
128.2	69.7	15.2	55.4	87.4	-
128.1	69.6	-	31.4	92.9	11.2
128.0	-	13.3	22.1	94.8	13.4
89.6	78.3	11.3	17.2	96.4	16.0
89.3	79.7	11.2	2.18	100.0	100.0
		-190°			
224.8	45.9	33.7	166.8	67.1	15.7
220.9	51.4	30.6	166.7	70.8	16.0
215.2	61.1	27.5	128.1	75.1	11.1
215.1	53.0	26.3	128.1	74.6	11.2
210.4	55.2	24.1	109.8	77.2	9.6
205.4	57.8	26.5	109.8	79.0	9.3
205.4	57.0	20.0	109.6	79.4	9.4
205.4	56.5	23.4	89.3	83.0	8.0
200.6	58.9	23.3	89.5	80.5	8.2
200.6	58.5	22.3	51.2	87.5	6.8
195.8	59.9	20.5	51.2	89.8	6.9
190.9	61.9	19.5	17.2	97.3	10.1
186.1	63.2	19.2	1.18	100.0	100.0
176.4	65.6	16.9			
		-200°			
224.9	72.5	11.0	113.8	84.6	4.5
224.8	73.5	10.7	113.7	83.5	5.2
205.6	75.0	8.8	80.2	87.3	4.1
205.4	74.3	9.8	80.1	88.0	3.6
186.2	77.1	8.4	79.7	-	3.7
186.2	76.4	8.6	51.0	91.6	3.3
176.4	77.0	8.0	50.9	-	3.0
176.4	78.2	8.3	31.8	94.4	2.5
152.4	-	6.9	31.5	-	3.6
152.4	79.4	7.0	22.2	-	4.6
142.5	-	6.5	17.3	96.7	3.3
128.0	-	5.8	0.33	100.0	100.0
113.9	83.4	4.9			
		-205°			
215.16	79.8	6.6	41.45	93.7	1.5
190.97	81.2	6.1	41.41	93.8	1.5
152.33	83.7	5.4	41.26	-	1.3
152.17	84.2	3.2	31.67	95.1	1.4
118.38	86.2	3.5	26.61	95.8	2.4
118.29	-	3.8	21.69	96.7	1.8
79.89	89.8	2.3	17.02	97.0	2.1
79.86	-	2.3			

Critical constants

t	P	%	P	%
	plait point		contact	
-185	187	42	54	10
-190	228	40	48	7
-200	325	36	34	2.5
-205	380	34	30	0.5

Vapour phase

%	P	%	P
	-210°		
3.69	195.75	2.58	79.80
3.47	176.41	1.24	65.74
3.12	147.39	0.82	32.03
2.97	137.76	0.88	21.85
2.20	104.01	0.78	16.81
	-215°		
1.82	176.37	1.10	89.52
1.92	157.03	0.53	51.37
1.50	128.05		

L + V + C from 55.2 to 205.5 atm. -206.4

Trautz and Baumann, 1929

%	η -78°	η -38°	η 19°	η 100°	η 200°	η 250°
0	6.76	7.54	8.74	10.30	12.12	12.97
30.13	-	-	-	16.72	20.16	21.44
30.53	10.81	12.42	14.49	-	-	-
48.19	-	-	-	-	22.30	23.82
49.18	11.79	13.61	-	-	-	-
52.45	-	-	16.10	19.20	-	-
59.04	12.19	14.10	16.51	-	-	-
62.63	-	-	-	19.71	23.30	24.89
78.16	-	-	-	20.38	24.05	25.74
80.73	12.50	14.55	17.17	-	-	-
100.00	12.64	14.76	17.45	20.85	24.66	26.36

Trautz and Ludewigs, 1929

%	η 19°	η 100°	η 200°	η 250°
0	8.74	10.30	12.12	12.97
5.15	10.43	12.33	14.40	15.60
10.94	11.90	13.92	16.25	17.71
16.63	12.90	15.34	17.78	19.21
23.27	13.90	16.38	19.19	20.62
42.51	15.70	18.46	21.73	23.34
73.46	17.00	20.20	23.84	25.49
91.58	17.37	20.73	24.48	26.22
100.00	17.45	20.85	24.60	26.36

Van Itterbeek, Van Paemel and Van Lierde, 1947

%	η	%	η
		20.1°	
0	8.84	38.6	15.62
11.9	12.03	49.4	16.30
19.1	13.28	61.3	16.86
27.4	14.46	100.0	17.68

Ibbs and Hirst, 1929

%	heat conductivity coefficient $.10^6$
0°	
100.0	53
83.7	80
72.8	103
43.4	180
36.6	209
20.6	270
0.0	404

Hydrogen (H_2) + Carbon dioxide (CO_2)

Lala, 1891

t	p_1 ($v=1$)	p_2 ($v=1/2$)	$2p_1-p_2$
	100 vol %		
20.3	7615.79	15105.03	126.55
10.6	7289.12	14450.12	128.12
12.7	5719.60	11339.96	99.24
13.4	4706.59	9333.12	80.06
20.3	4351.34	8627.89	74.79
18.6	2921.78	5792.51	51.05
19.5	2845.84	5644.12	47.56
14.2	2478.01	4914.08	41.94
12.3	2063.71	4092.78	34.64
20.0	1889.24	3746.49	31.99
12.2	1563.07	3098.67	27.47
12.2	1114.50	2209.75	19.25
	92.49 vol %		
13.5	7966.91	15167.14	766.68
13.3	7607.25	14482.37	732.13
13.4	7549.13	14372.29	725.97
13.9	7514.28	14309.03	719.53
13.6	7375.75	14049.97	701.53
14.2	7053.63	13472.54	634.72
14.0	6938.25	13270.40	606.01
14.1	6490.54	12471.99	509.09
14.1	6081.48	11725.10	437.86
14.2	5698.14	11019.07	377.21
14.5	5122.83	9939.65	306.01
15.0	4892.29	9508.54	276.04
15.3	4605.80	8966.57	245.03
15.5	4147.10	8085.77	208.43
15.3	3724.21	7278.73	169.89
15.4	3434.63	6722.15	147.11
15.0	3149.19	6174.33	124.05
15.1	2912.89	5721.05	104.73
13.2	2779.74	5465.33	94.15
13.5	2639.29	5194.28	84.30
13.7	2559.69	5042.29	77.09
11.9	2421.81	4774.84	68.78
12.0	2188.97	4323.82	54.12
12.1	2082.92	4116.67	49.17
12.3	1987.57	3931.31	43.83
12.5	1902.48	3766.65	38.31
12.6	1821.90	3609.33	34.47
13.0	1532.93	3041.55	24.31
13.3	1484.82	2946.53	23.11
13.3	1355.81	2692.31	19.31
13.5	1308.40	2598.98	17.82
13.6	1269.07	2521.82	16.32
13.7	1073.32	2133.17	13.47
13.8	967.51	1924.90	10.12
13.8	885.50	1762.80	8.20
13.8	808.89	1610.77	7.01
14.1	803.23	1599.95	6.51

t	p_1 (v=1)	p_2 (v=1/2)	$2p_1-p_2$
	84.22 vol %		
15.4	8131.57	15622.67	640.47
15.6	8016.12	15404.27	626.97
15.6	7857.04	15109.96	604.12
15.3	7826.09	15054.35	599.63
15.6	7679.89	14781.20	578.58
15.7	7185.30	13856.59	514.01
15.7	6986.21	13486.92	484.40
16.1	6903.20	13335.22	471.18
16.4	6395.53	12395.55	395.51
16.3	6302.61	12224.44	380.78
16.6	6099.84	11845.57	354.11
16.8	5795.99	11275.63	316.35
16.8	5420.72	10565.46	275.98
15.9	4926.49	9632.45	220.53
16.5	4643.46	9089.28	197.64
16.3	4491.18	8796.94	185.42
16.5	4154.27	8147.10	161.44
16.5	3918.20	7693.27	143.13
15.4	3852.65	7564.55	140.75
15.5	3705.46	7278.90	132.02
15.7	3099.35	6106.69	92.01
15.7	2929.85	5777.12	82.58
16.6	2727.33	5386.26	68.40
16.7	2588.54	5117.34	59.74
16.7	2403.48	4755.93	51.04
16.8	2229.77	4417.68	41.86
17.0	2125.63	4214.82	36.44
17.1	2027.35	4022.42	32.28
17.1	1973.88	3917.75	30.01
15.3	1616.73	3211.16	22.30
15.6	1538.34	3056.71	19.97
15.7	1486.25	2954.35	18.15
15.5	1358.72	2699.97	17.47
15.7	1296.24	2577.14	15.34
15.7	1211.36	2409.57	13.15
15.7	1140.92	2270.66	11.18
15.7	1080.19	2150.30	10.08
15.6	969.49	1930.64	8.37
15.7	922.91	1838.07	7.75
	80.22 vol %		
16.3	8028.61	15534.10	523.12
16.4	7974.72	15439.46	509.98
16.5	7896.44	15294.11	498.77
16.6	7858.78	15224.81	492.75
16.7	7749.29	15022.56	476.02
16.8	7579.92	14703.47	456.37
16.7	7028.28	13666.55	390.01
16.7	6945.34	13509.56	381.12
16.8	6816.59	13267.95	365.23
16.8	6460.75	12595.51	325.99
16.9	5911.22	11545.67	276.77
16.9	5390.42	10547.79	233.05
16.9	5048.51	9890.67	206.35
15.3	4898.11	9600.91	195:31
15.8	4515.78	8860.84	170.72
16.0	4351.48	8544.19	158.77
16.1	4314.68	8474.04	155.32
16.6	3868.37	7608.39	128.35
16.8	3778.24	7433.84	122.64
16.9	3722.77	7326.50	119.04
16.9	3626.08	7137.22	114.94
16.4	3447.52	6791.06	103.98
16.4	3259.26	6427.36	91.16
16.5	3189.27	6292.07	86.47
16.6	3055.96	6032.05	79.87
16.9	2940.38	5808.72	72.04
17.0	2836.01	5607.47	64.55
17.1	2648.82	5242.19	55.45
17.1	2501.25	4953.43	49.07
17.3	2302.58	4566.05	39.11
17.3	2174.86	4316.11	33.61
17.2	2121.52	4212.58	30.46
17.3	2057.78	4087.21	28.35
16.3	1960.76	3895.29	26.23
16.1	1855.31	3687.47	23.15
16.1	1821.68	3621.25	22.11
16.3	1656.78	3295.44	18.12
16.3	1568.96	3121.53	16.39
16.5	1363.62	2714.15	13.09
16.8	1223.24	2436.85	10.83
16.9	1095.37	2182.21	8.53
17.0	1075.42	2142.49	8.35
17.0	993.63	1979.38	7.88
17.1	883.93	1761.89	5.97
	75.53 vol %		
17.1	8073.01	15681.80	464.22
17.1	7968.34	15488.37	448.31
17.3	7844.74	15258.44	431.04
17.5	7685.34	14958.32	412.36
17.7	7007.96	13674.89	341.03
17.7	6868.95	13409.42	328.48
18.1	6378.96	12474.01	283.91
17.8	5991.74	11730.84	252.64
18.8	5883.90	11523.00	244.80
19.1	5780.47	11323.74	237.20
19.1	5399.67	10588.75	210.59
18.5	4989.71	9796.26	183.16
19.1	4651.61	9142.02	161.20
19.2	4293.83	8446.38	141.28
16.1	3958.38	7795.07	121.69
16.1	3751.40	7392.38	110.42
16.4	3695.23	7282.47	107.99
16.3	3673.21	7239.53	106.89
16.5	3611.22	7119.53	102.91
16.6	3433.07	6773.45	92.69
16.5	3219.58	6358.53	80.63
15.8	3190.50	6302.27	78.73
16.0	3145.63	6215.76	75.50
16.1	3067.01	6061.98	72.04
16.2	2967.93	5868.37	67.49
16.2	2795.35	5532.61	58.09
17.0	2735.41	5415.62	55.20
16.8	2583.22	5117.82	48.62
16.8	2515.63	4985.55	45.71
15.8	2379.27	4718.37	40.17
16.0	2350.68	4663.35	38.01
16.2	2267.53	4499.40	35.66
16.3	2185.51	4338.87	32.15
16.5	2071.89	4115.43	28.35
16.6	2029.03	4031.92	26.14
17.0	1911.36	3800.33	22.39
17.1	1853.47	3686.97	19.97
16.6	1599.81	3183.10	16.52
16.6	1433.13	2853.71	12.55
17.0	1324.80	2638.71	10.89
17.3	1260.70	2511.57	9.83
17.3	1178.63	2348.60	8.66
17.2	1086.93	2166.47	7.39
17.5	1037.32	2068.60	6.04
17.5	940.31	1874.89	5.73

τ	p_1 ($v=1$)	p_2 ($v=1/2$)	$2p_1-p_2$
		70.92 vol %	
18.8	8273.52	16169.42	377.62
18.7	8031.93	15706.96	356.90
18.6	7806.53	15275.05	338.01
18.6	7286.72	14276.88	296.56
18.8	7153.94	14020.28	287.60
18.9	6716.25	13177.66	254.84
18.8	6323.09	12418.76	227.42
19.0	6188.74	12159.39	218.09
19.1	6119.47	12025.14	213.80
19.0	6014.74	11823.19	206.29
19.1	5783.35	11376.14	190.56
19.1	5424.11	10680.72	167.50
19.3	5234.15	10312.92	155.38
18.2	4799.99	9469.63	130.35
18.4	4489.84	8867.89	111.79
18.6	4455.06	8800.64	109.48
18.6	4256.29	8414.47	98.11
18.8	3880.68	7678.42	82.94
18.6	3676.44	7278.36	74.52
18.6	3278.00	6495.74	60.26
18.8	3038.99	6028.02	49.96
19.0	2887.87	5729.64	46.10
18.7	2813.93	5583.83	44.03
19.0	2646.69	5255.25	38.13
18.9	2515.11	4998.02	32.20
19.5	2294.63	4563.09	26.17
17.4	2183.09	4341.59	24.59
18.1	2142.79	4262.45	23.13
18.5	2099.56	4177.41	21.71
18.5	1996.27	3973.86	18.68
18.9	1919.42	3820.91	17.93
19.7	1891.43	3766.77	16.09
19.0	1757.74	3501.51	13.97
19.5	1621.88	3232.14	11.62
18.8	1565.07	3120.21	9.93
19.0	1502.30	2996.65	8.05
19.5	1331.41	2656.01	6.81
20.0	1279.94	2553.95	5.93
20.1	1074.03	2143.28	4.78
		62.50 vol %	
21.6	8186.95	16094.86	279.04
21.2	8061.25	15857.41	265.09
21.4	7964.56	15672.57	256.55
21.7	7537.43	14850.95	223.91
21.3	7055.83	13920.64	191.02
21.1	6874.17	13568.09	180.21
20.9	6741.66	13310.02	173.30
20.9	6407.88	12659.78	155.98
20.6	6015.72	11894.57	136.87
20.6	5904.92	11677.79	132.05
20.8	5677.00	11231.93	122.07
20.9	5494.68	10874.73	114.63
20.9	5159.34	10218.66	100.02
20.8	5066.11	10036.11	96.11
20.9	4948.05	9804.89	91.21
20.8	4828.32	9570.18	86.46
21.1	4382.33	8694.57	70.09
21.2	4273.50	8479.91	67.09
18.9	3900.57	7743.74	57.40
18.9	3790.64	7527.64	53.64
19.3	3716.08	7382.03	50.13
19.5	3682.81	7315.93	49.69
19.6	3564.15	7082.18	46.12
19.7	3367.06	6692.89	41.23
19.6	3201.41	6366.69	36.13
20.2	3071.01	6108.04	33.98
20.0	2985.40	5938.95	31.85
19.8	2832.23	5635.65	28.81
20.3	2731.24	5435.57	26.91
20.1	2589.34	5154.75	23.93
20.1	2459.60	4896.99	22.21
19.9	2333.38	4646.71	20.05

τ	p_1 ($v=1$)	p_2 ($v=1/2$)	$2p_1$ p_2
20.0	2255.46	4492.36	18.56
20.1	2039.52	4063.97	15.07
20.5	1902.95	3793.93	11.97
20.9	1787.58	3565.82	9.34
20.7	1611.76	3216.40	7.12
21.5	1539.34	3072.60	6.08
20.7	1488.97	2972.27	5.67
21.0	1230.99	2458.39	3.59
21.1	1144.99	2287.30	2.68
21.5	1057.42	2112.94	1.90
		54.98 vol %	
17.9	7869.99	15557.07	182.91
18.1	7744.09	15315.06	173.12
18.2	7677.34	15185.40	169.28
18.4	7626.29	15087.10	165.48
18.6	7531.45	14903.10	159.80
18.9	7222.92	14300.42	145.42
18.7	6781.87	13435.54	128.20
18.8	6684.12	13244.26	124.58
18.8	6497.75	12878.08	117.42
19.1	6355.30	12597.61	112.99
19.0	6186.39	12266.62	106.16
19.1	5825.59	11558.74	92.44
19.2	5709.58	11332.28	86.88
19.1	5579.64	11077.20	82.08
19.2	5339.53	10605.65	73.41
19.4	5007.99	9953.06	62.92
19.2	4871.30	9684.53	58.07
19.3	4599.44	9147.15	51.73
19.4	4319.78	8593.76	45.80
19.4	4194.55	8346.09	43.01
19.2	3921.70	7806.53	36.87
19.2	3883.89	7731.88	35.90
19.4	3754.84	7477.17	32.51
19.6	3620.76	7210.74	30.78
19.5	3418.25	6808.20	28.30
19.5	3074.81	6126.04	23.58
19.5	2942.67	5863.28	22.06
19.6	2847.23	5673.87	20.59
19.7	2780.58	5541.85	19.31
19.6	2622.75	5227.82	17.68
19.7	2571.76	5126.91	16.61
19.9	2412.18	4810.38	13.98
20.2	2297.79	4582.25	13.33
20.3	2098.81	4186.78	10.84
20.2	1992.06	3974.24	9.88
20.1	1837.26	3666.54	7.98
18.9	1656.89	3307.76	6.02
18.9	1558.71	3113.04	4.38
19.1	1268.88	2535.64	2.12
19.3	1132.67	2263.46	1.88

t	p_1 (v=1)	p_2 (v=1/2)	$2p_1-p_2$
	48.30 vol %		
19.7	7914.28	15688.23	140.33
19.6	7335.91	14557.08	114.74
19.6	7251.78	14392.29	111.27
19.9	7165.88	14223.95	107.81
20.0	7005.03	13908.18	101.88
20.0	6775.24	13456.38	94.10
20.0	6700.19	13308.80	91.58
20.2	6523.43	12960.54	86.32
18.5	6165.44	12215.04	75.86
18.8	6051.91	12030.68	73.14
19.0	5996.01	11920.04	71.98
19.2	5794.31	11522.27	66.35
19.2	5631.85	11201.84	61.86
19.2	5381.51	10706.98	56.04
19.4	5306.61	10559.31	53.91
19.4	5271.91	10490.10	53.72
19.7	5122.80	10194.33	51.27
19.5	4919.90	9790.98	48.82
19.7	4526.03	9010.14	41.92
19.8	4388.73	8738.74	38.72
20.2	4241.00	8445.12	36.88
20.1	3936.21	7839.49	32.93
18.4	3841.02	7651.26	30.78
18.1	3673.89	7319.75	28.03
18.6	3598.89	7170.91	26.87
18.6	3371.12	6718.35	23.89
18.9	3088.41	6156.56	20.26
19.3	2998.72	5978.42	19.02
19.5	2845.32	5673.08	17.56
19.7	2702.82	5391.13	14.51
19.4	2580.51	5147.13	13.89
19.7	2531.33	5049.65	13.01
19.5	2452.56	4892.55	12.57
19.5	2335.07	4659.16	10.98
19.5	2255.59	4501.19	9.99
19.8	2058.07	4108.12	8.02
19.6	2000.75	3993.54	7.96
19.6	1899.13	3791.90	6.36
19.7	1813.69	3621.40	5.98
19.3	1578.75	3153.61	3.89
18.7	1320.61	2639.14	2.08
19.0	1192.64	2383.53	1.75
19.2	1142.46	2283.60	1.32
	43.34 vol %		
20.7	8049.08	16040.64	57.52
20.6	7641.36	15238.29	44.43
20.8	7319.94	14601.86	38.02
20.9	6634.81	13241.77	27.85
21.3	6355.51	12686.07	24.95
20.9	6131.14	12238.54	23.74
21.1	5816.71	11611.36	22.06
21.1	5655.25	11288.57	21.93
21.6	5528.66	11035.68	21.64
19.6	5368.79	10716.51	21.07
19.9	5008.12	9996.23	20.01
20.0	4870.60	9721.22	19.98
20.2	4791.56	9563.24	19.88
20.4	4608.04	9196.84	19.24
19.8	4462.92	8906.74	19.10
19.8	4397.24	8776.15	18.33
19.9	4256.96	8495.92	18.00
20.0	4124.41	8230.98	17.84
19.9	3706.15	7396.38	15.92
20.0	3673.41	7331.26	15.56
19.5	3104.66	6197.06	12.26
19.6	3069.33	6126.68	11.98
19.6	2995.19	5978.47	11.91
19.7	2871.22	5730.60	11.84
20.0	2755.02	5499.33	10.71
19.8	2657.51	5304.99	10.03
20.0	2580.22	5150.47	9.97
20.0	2472.75	4935.80	9.70

t	p_1 (v=1)	p_2 (v=1/2)	$2p_1-p_2$
20.0	2378.30	4747.82	8.78
20.1	2280.37	4552.69	8.05
20.8	2212.67	4417.38	7.96
20.4	2116.21	4225.11	7.31
20.2	2055.61	4104.79	6.43
20.4	1948.32	3890.63	6.01
20.5	1877.51	3749.90	5.12
20.3	1803.83	3603.21	4.45
20.5	1694.46	3384.99	3.93
20.6	1601.85	3200.62	3.08
19.9	1507.04	3011.98	1.05
20.1	1079.62	2158.79	0.45
20.3	1029.25	2058.20	0.30
	38.34 vol %		
19.9	8036.29	16052.10	20.48
20.1	7951.54	15885.53	17.55
20.1	7846.59	15678.07	15.11
20.2	7708.19	15404.35	12.03
20.1	7539.97	15071.29	8.65
20.1	7296.50	14588.28	4.72
20.2	7124.72	14245.55	3.89
20.3	7031.11	14059.37	2.85
20.3	6971.75	13941.16	2.34
20.2	6801.61	13601.19	2.03
20.7	6737.36	13472.74	1.98
20.5	6601.15	13200.37	1.84
19.8	6353.32	12704.80	1.61
20.0	6105.16	12208.71	1.53
20.2	5978.23	11954.93	1.33
20.4	5836.80	11672.27	1.21
20.3	5648.32	11295.43	1.19
20.3	5434.66	10868.13	1.14
20.6	5245.98	10490.82	1.09
20.6	5112.01	10222.93	1.07
20.7	5025.96	10050.85	1.04
20.7	4940.86	9880.68	1.01
21.1	4790.63	9580.25	0.99
21.2	4538.95	9076.91	0.94
19.4	4351.71	8702.48	0.89
19.9	4293.76	8586.63	0.83
19.5	4188.89	8376.95	0.77
19.6	3959.32	7917.87	0.68
19.6	3745.90	7491.12	0.63
20.1	3684.11	7367.59	0.59
20.0	3547.09	7093.59	0.47
19.4	3160.75	6321.03	0.39
19.8	3008.41	6016.43	0.23
19.8	2844.13	5688.03	0.14
19.9	2743.78	5487.42	0.08
20.1	2609.36	4946.22	0.01
20.2	2410.10	4820.19	-
20.9	2331.43	4662.86	-
20.3	2200.75	4401.50	-
20.4	1996.67	3993.34	-
20.8	1936.64	3873.28	-
20.4	1798.60	3597.20	-
20.6	1557.44	3114.88	-
20.6	1471.25	2942.50	-
20.6	1304.99	2609.98	-
20.8	1138.73	2277.46	-
20.9	1055.79	2111.58	-

t	p_1 (v=1)	p_2 (v=$^1/_2$)	$2p_1-p_2$
	27.18 vol %		
19.6	8148.07	16335.81	39.67
19.7	7990.30	16019.08	38.48
19.8	7906.53	15851.02	37.96
19.9	7772.64	15583.01	37.73
20.0	7607.45	15251.13	36.23
20.0	7354.67	14744.75	35.41
20.3	7212.66	14459.51	34.19
20.5	7100.68	14235.21	33.85
20.8	7013.06	14059.17	33.05
20.4	6888.83	13810.24	32.58
20.3	6772.04	13576.00	31.92
20.4	6573.45	13177.53	30.63
18.6	6206.03	12439.96	27.90
18.9	5906.74	11840.04	26.56
19.2	5722.16	11470.31	25.99
19.2	5440.82	10905.58	23.94
19.4	5244.13	10511.07	22.81
19.6	5089.21	10200.40	21.98
19.4	4927.35	9875,73	21.03
19.3	4686.56	9393.10	19.98
18.5	4479.43	8976.99	18.13
19.9	4361.43	8740.34	17.48
18.7	4327.87	8672.78	17.04
18.9	4036.93	8089.37	15.51
19.4	3702.32	7416.67	12.03
19.4	3528.96	7069.22	11.30
19.4	3167.18	6342.84	8.48
19.6	3036.01	6080.08	8.06
18.9	2865.36	5737.56	6.84
19.0	2722.35	5450.43	5.73
19.1	2551.46	5107.79	4.87
19.2	2391.45	4787.29	4.39
19.2	2254.29	4512.03	3.45
19.2	2177.29	4357.71	3.13
19.3	2034.08	4070.55	2.39
19.6	1870.64	3743.34	2.08
19.4	1707.51	3416.98	1.96
18.2	1638.99	3019.59	1.61
18.4	1283.72	2568.84	1.40
18.8	1243.15	2487.65	1.35
18.8	1119.52	2240.33	1.29
	19.60 vol %		
18.1	8131.01	16330.42	68.40
18.0	7985.62	16038.23	66.99
17.9	7767.17	15598.94	64.60
18.1	7668.08	15400.24	64.08
18.2	7533.33	15129.55	62.89
18.3	7286.67	14634.38	61.04
18.2	7111.82	14283.30	59.66
18.4	6757.86	13571.63	55.91
18.5	6415.72	12884.56	53.12
18.6	6165.31	12381.11	50.49
18.9	5942.71	11933.85	48.43
18.9	5676.02	11398.21	46.17
18.6	5358.15	10759.68	43.38
19.0	5276.85	10596.50	42.80
19.0	5029.64	10098.77	39.49
19.2	4813.26	9662.77	36.25
17.5	4512.46	9057.15	32.23
17.6	4188.06	8404.23	28.11
17.8	4122.56	8272.15	27.03
17.8	3880.19	7784.37	23.99
17.9	3715.82	7453.09	21.45
17.8	3637.85	7295.68	19.98
18.0	3515.98	7049.57	17.61
18.4	3169.55	6352.49	13.39
18.4	3037.09	6085.93	11.75
18.6	2944.69	5899.53	10.15
18.8	2844.05	5697.84	9.74
18.7	2673.42	5353.42	6.58
18.9	2462.53	4930.30	5.24
18.8	2376.75	4758.34	4.84
19.0	2244.47	4493.00	4.06
19.0	2094.37	4192.68	3.94
19.3	1776.38	3555.82	3.06
17.3	1716.66	3436.21	2.89
17.4	1599.18	3201.12	2.76
17.6	1516.46	3035.65	2.73
17.5	1442.72	2887.93	2.49
17.9	1248.26	2498.60	2.08
18.0	1180.76	2363.28	1.76
18.0	1086.45	2174.43	1.53
	0 vol%		
6.9	6850.35	13713.25	-12.55
7.1	6372.20	12754.95	-10.55
7.5	5934.30	11872.09	- 3.49
7.5	5553.25	11112.67	- 6.17
7.5	5171.45	10350.76	- 7.86
7.5	4987.22	9977.84	- 3.40
7.5	4682.48	9368.11	- 3.15
7.8	4446.92	8896.80	- 3.04
7.8	4207.16	8421.00	- 6.68
7.8	3818.48	7643.01	- 7.95
8.0	3659.48	7324.52	- 5.56
8.1	3136.75	6275.72	- 2.22
8.0	2980.58	5963.39	- 2.23
7.9	2815.87	5635.90	- 4.16
7.9	2681.50	5364.98	- 1.98
8.0	2539.53	5082.78	- 3.72
8.1	2419.87	4843.20	- 3.46
8.2	2310.25	4622.41	- 1.91
8.3	2200.19	4403.32	- 2.94
8.4	2093.39	4188.63	- 1.85
8.6	1996.03	3993.86	- 1.80
8.7	1904.46	3810.70	- 1.78
8.9	1827.44	3657.13	- 2.25
9.1	1601.93	3205.49	- 1.63
9.2	1541.50	3084.85	- 1.85
9.3	1250.31	2501.93	- 1.31
9.5	1210.14	2421.70	- 1.42
9.6	1169.88	2341.04	- 1.28

Verschaffelt, 1898, 1899 and 1906

v *	P	v *	P

*v = fraction of the volume .
a = two phases .

10.29 mol.%

17.10°

v *	P	v *	P
3234	33.46	1906	58.50
2989	36.25	1764	62.25
2840	38.15	1635	67.40
2692	40.31	1485	74.55
2532	42.94	1336	83.15
2384	45.72	1173	95.20
2217	49.22	1028	109.50
2076	52.65		

20.37 mol %

18.30°

v *	P	v *	P
3293	32.61	1630	66.20
2999	35.81	1484	72.95
2723	39.47	1335	81.35
2474	43.49	1212	89.65
2253	47.78	1090	100.10
2032	53.00	965.0	113.20
1840	58.60		

35.55 mol %

16.80°

v *	P	v *	P
2979	34.85	1686	60.90
2746	37.76	1576	65.20
2600	39.90	1433	71.45
2446	42.35	1284	79.50
2294	45.10	1140	89.25
2143	48.21	993.5	105.20
1989	51.90	849.5	119.20
1836	56.05		

24.20°

v *	P	v *	P
2979	35.82	1836	57.60
2746	38.79	1686	62.65
2600	41.00	1576	67.05
2446	43.53	1433	73.60
2294	46.34	1284	82.00
2143	49.60	1140	92.05
1989	53.35	993.5	105.50

31.90°

v *	P	v *	P
2979	36.85	1836	59.35
2746	39.95	1686	64.55
2600	42.13	1576	69.05
2446	44.80	1433	75.80
2294	47.88	1284	84;55
2143	51.00	1140	94.85
1989	54.95	993.5	108.9

50.07 mol %

18°

v *	P	v *	P
3168	32.11	1889	52.35
2975	34.09	1736	56.80
2825	35.78	1624	60.45
2667	37.85	1468	66.35
2512	40.08	1323	73.05
2355	42.60	1172	81.85
2206	45.34	1017	93.15
2045	48.71	869.4	107.30

32°

v *	P	v *	P
3168	33.84	1889	55.50
2975	35.95	1736	60.20
2825	37.78	1624	64.05
2667	39.97	1468	70.40
2512	42.36	1323	77.65
2355	45.07	1172	87.10
2206	47.97	1017	99.50
2045	51.55	869.4	114.90

64.72 mol %

16°

v *	P	v *	P
2810	34.44	1587	57.35
2585	37.17	1480	60.90
2442	39.15	1340	66.35
2299	41.38	1207	72.40
2159	43.77	1067	80.30
2014	46.54	925.5	89.90
1869	49.70	794.0	101.60
1724	53.35	651.0	115.30

31.6°

v *	P	v *	P
2810	36.85	1587	61.80
2585	39.80	1480	65.75
2442	41.96	1340	71.75
2299	44.38	1207	78.45
2159	46.95	1067	87.25
2014	49.99	925.5	98.30
1869	53.45	794.0	112.0
1724	57.40		

80.10 mol %

15.35°

v *	P	v *	P
2960	31.34	1016	72.10
2700	33.84	974.5	73.95
2423	37.27	938.5	75.80
2142	41.26	902.0	77.75
2031	43.03	860.5[a]	79.75
1844	46.58	827.5	81.40
1653	50.75	786.0	83.60
1461	55.70	712.5	88.20
1276	61.55	518.0	105.90
1090	68.90	455.2[a]	117.40
1051	70.55		

20.90°

v *	P	v *	P
781.0	89.15	633.5[a]	101.5
746.5	91.75	596.5	105.1
710.5	94.55	557.5	109.6
673.5	97.70	521.0[a]	114.2

22.20°

v *	P	v *	P
671.5	99.05	558.5	110.9
634.0	102.5	524.0[a]	115.4
596.5[a]	106.4		

22.80°

v *	P	v *	P
2030	44.79	902.5	82.45
1833	48.78	711.5	96.05
1651	53.00	525.5	116.0
1461	58.35	514.0	117.6
1316	63.20	507.0	118.8
1082	72.85	496.5	120.6

31.80°

v *	P	v *	P
2018	47.00	1090	77.00
1838	50.90	902.0	88.10
1651	55.50	710.5	104.10
1465	61.15	596.5	117.10
1275	68.20		

90.05 mol %			
	16.90°		
2774	32.24	994.0	66.00
2490	35.25	956.5[a]	67.30
2199	38.90	914.5[a]	68.30
2066	40.80	880.0	69.10
1874	43.91	836.0	70.25
1683	47.51	799.0	71.35
1490	51.65	716.5	74.00
1296	56.60	524.0	84.20
1106	62.25	355.1[a]	106.3
1067	63.50	328.4[a]	113.6
	22.80°		
2061	42.20	718.5[a]	81.60
1877	45.40	649.5[a]	85.05
1683	49.26	595.5	87.80
1480	53.90	532.5	91.95
1293	59.10	526.0	92.45
1110	65.15	417.1[a]	104.10
914.5	72.55	361.2[a]	114.60
	24.20° (critical)		
914.5	73.45	490.2	97.45
724.5	82.50	456.6	101.10
670.0	85.40	417.1	106.30
647.0[a]	86.65	390.4	110.80
612.0[a]	88.60	382.1[a]	112.20
568.5	91.60	373.8[a]	114.20
527.0	94.30		
	25.00°		
726.0	83.25	494.8	98.45
668.5	86.40	455.1[a]	102.5
609.0	89.95	437.6[a]	104.7
570.0[a]	92.60	397.4	110.8
533.0[a]	95.35		
	25.45° (contact)		
668.5	86.85	458.0	102.90
607.0	90.50	419.6	108.20
491.8	99.45	377.6	115.30
	26.05°		
2069	42.82	918.5	74.50
1873	46.27	724.0	84.20
1685	50.20	530.0	96.90
1486	54.90	456.6	103.90
1300	60.25	380.6	115.80
1107	66.85		
	32.30°		
2052	44.58	1109	69.95
1870	47.93	914.5	78.60
1675	52.20	722.0	89.70
1479	57.15	525.5	105.4
1297	62.85	424.9	118.1

95.06 mol %			
	15.30°		
2749	31.41	918.0	59.25
2171	34.19	724.0	62.15
2074	39.12	527.5	67.75
1688	45.08	353.9[a]	80.55
1302	52.75	254.3[a]	102.90
1187	55.35	250.0	108.10
1152[a]	56.25	247.1	111.30
1110[a]	57.20	242.8	117.00
1074	57.55		
	21.50°		
2071	40.63	724.0	70.30
1880	43.56	528.5[a]	76.00
1691	46.97	362.9[a]	88.00
1495	50.90	283.2	102.90
1302	55.45	278.2	105.20
1112	60.40	273.2	107.70
919.0[a]	65.95	267.5	112.60
845.0[a]	68.00	261.2	
	26.30°		
912.5	69.80	416.3	90.55
722.0	76.80	402.8	91.55
648.0	79.30	397,9[a]	92.05
605.0[a]	80.95	395.0[a]	92.25
570.4[a]	82.35	340.3	99.05
533.3	83.90	301.3	109.40
419.7	90.25		
	27.10° (critical)		
571.0[a]	82.70	399.2	92.45
534.5[a]	84.20	396.3	92.60
420.5	90.65	392.8	93.00
406.3	91.85	391.5	93.20
402.8	92.20	371.6	95.10
	27.30°		
2079	45.87	452.3[a]	88.95
1688	48.78	425.5	90.55
1305	57.80	421.9	90.85
919.0	69.85	419.7	91.05
647.0	79.80	410.5	91.65
612.0	81.25	406.3	92.15
570.0[a]	83.05	375.0	95.10
533.0[a]	84.55	339.0	100.60
494.6	86.50	299.5	111.80
	27.50° (contact)		
648.0	79.95	457.3	88.95
609.5	81.55	444.5	89.60
571.0	83.20	441.0	89.80
554.0	83.90	439.6	89.95
538.0	84.60	429.7	90.55
497.5	86.60	425.5	90.85
464.5	88.45		
	27.90°		
457.3	89.35	331.9	103.4
418.4	92.05	305.1	111.2
378.8	96.00	295.2	115.5
	32.10°		
2074	42.98	919.0	72.95
1880	46.36	723.5	81.35
1686	50.25	531.0	90.90
1494	54.65	419.0	99.40
1302	59.90	337.7	111.90
1106	66.05		

100 %			
	15.30°		
2618	31.69	1471	46.04
2406	33.65	1337	48.30
2131	36.77	1226[a]	50.05
1859	40.22	1196[a]	50.60
1588	44.28		
	32.00°		
2864	32.34	1037	63.20
2420	36.96	924.1	66.15
2120	40.86	786.8	69.75
1854	44.96	728.6	71.10
1582	50.00	662.9	72.50
1459	52.50	629.5	73.15
1335	55.55	599.2	73.60
1192	59.05		

v	v liq.	v	v liq.
90.05 mol %			
16.90°			
914.5	3.7	716.5	55.7
880.0	12.2	524.0	106.3
836.5	23.8	535.1	184.1
799.0	32.2		
22.80°			
672.5	8.0	419.6	138.1
645.0	19.4	361.2	201.4
535.5	72.7		
24.20° (critical)			
531.0	46.0	373.8	162.9
412.6	118.1		
25.00°			
558.0	3.7	424.9	58.9
533.0	15.3	423.8	53.0
494.8	35.2	417.1	43.3
458.0	50.9	412.9	24.0
437.6	55.1	412.6	0.0
435.5	58.8		
95.06 mol %			
15.30°			
1111	1.5	527.5	142.8
1074	5.6	353.9	209.3
919.0	38.8	254.3	254.3
723.5	87.5		
21.50°			
845.0	2.1	528.5	123.1
728.5	44.6	366.0	211.5
26.80°			
570.0	7.6	416.3	158.5
533.0	36.9	402.8	179.8
419.7	152.2	397.9	193.6
27.10° (critical)			
512.0	39.3	406.3	148.6
452.4	96.6		
27.30°			
535.0	5.7	433.1	87.7
494.8	37.6	429.8	64.4
437.3	64.4	431.8	47.4
452.3	75.8	428.3	43.8
441.8	79.9	429.7	38.3
437.4	78.6	425.5	19.0

condensation

t	v beginn.	p	v end	p
95.06mol%				
15.30	1111	57.20	254.3	102.9
21.50	854.5	67.90	289.2	100.0
26.80	585.0	81.75	383.3	93.20
27.10(crit.)	562.5	83.00	406.3	91.85
27.30	540.0	84.60	427.0	91.50
27.50(contact)	48.0	87.40	48.0	87.40
90.05mol%				
16.90	944.0	67.80	-	-
22.80	689.0	83.20	-	-
24.20(crit.)	625.5	87.90	373.8	114.2
25.00	565.0	92.90	412	108.4
25.45(contact)	47.0	101	47	101.0
80.10mol%				
15.35	879.5	79.10		
20.90	633.5	101.5		
22.20	560	110.9		
22.80(contact)	50	120.0		

Van Itterbeek and de Clippeleir, 1946

%	t	p	$(\varepsilon-1).10^6$
100	0.34	769	1008
95.568	.24	767	877
89.128	.21	765	823
69.987	.48	759	635
48.018	.43	759	420
0	.67	769	271
96.419	0.47	782	840
91.600	.39	750	808
84.250	.21	762	718
55.455	.47	770	416
100	20.08	774	948
99.486	18.08	778	960
99.092	20.08	771	943
98.705	14.67	772	962
98.431	14.64	765	939
96.447	17.26	761	868
90.674	16.72	772	795
85.098	17.96	765	663
80.160	16.58	765	636
64.490	17.04	763	487
0	20.08	772	258

Ewald, 1955

P	mol%	P	mol%
-83° C + V			
5.32	12.8	43.9	2.03
5.32	12.8		2.02
5.6	13.1	60.6	1.69
5.6	12.3		1.60
10.2	6.97	76.5	1.37
10.2	6.93		1.34
15.6	4.84	99.7	1.17
	4.78	101.0	1.16
27.3	2.88		1.17
	2.89	111.6	1.10
36.3	2.38		1.15

Deutsch, 1907

mol%	D (cm²/sec.)
	15°
25	0.592
50	.604
75	.631

Puluj, 1879

vol%	t	η	vol%	t	η
100.0	19.7	15.0	0.19	19.7	9.8
45.6	19.5	15.0	.09	20.7	9.4
20.7	20.6	13.8	.04	19.7	9.2
0.94	19.2	12.1	.02	19.9	9.2
0.42	18.4	10.5	.00	20.3	9.1

Breitenbach, 1899

%	η		%	η	
	15.0°	99.2°		15.0°	99.2°
0	8.93	10.64	84.73	-	18.88
2.76	9.91	11.95	87.02	14.84	-
17.80	12.89	16.24	100	14.64	18.70
51.56	14.85	18.05			

Thomsen, 1911

%	η	%	η
	15°		
100	14.680	33.3	14.50
91.5	14.830	23.5	13.67
82.8	14.900	17.8	12.92
77.6	14.935	12.1	12.01
74.1	14.938	0.0	9.11
44.6	14.850		

Trautz and Narath, 1926

%	η	%	η
	15°		
0	9.27	66.7	11.80
25	9.67	75	12.78
33.3	10.10	100	14.68
50	10.80		

Heath, 1953 (fig.)

%	η	%	η
		18°	
100	14.6	30	13.8
80	14.7	20	13.1
60	14.7	10	11.6
50	14.6	0	8.8
40	14.2		

Weber, 1918

vol%	h.10⁶	vol%	h.10⁶
		0°	
100	33.93	39.32	172.35
92.47	44.77	16.55	279.90
90.60	47.66	5.71	359.00
82.99	60.73	0	416.30
63.02	103.40		

h = heat conductivity coefficient

Ibbs and Hirst, 1929

%	h.10⁶	%	h.10⁶
		0°	
100.0	36	50.0	135
95.1	44	25.0	227
90.0	51	9.9	315
85.8	57	5.0	355
75.0	77	0.0	404
64.5	100		

h = heat conductivity coefficient

Kornfeld and Hilferding, 1931

mol%	h .10⁶	mol%	h .10⁶
		25°	
0	437	80.70	75.8
3.62	402	95.30	44.3
9.41	350	100.00	40.8
50.40	151.3		

h = heat conductivity coefficient

Kudryasvtsev, 1947

Sound absorption coefficient

%	a (cm⁻¹)	%	a (cm⁻¹)
	17°	947 kHz	
100	1.95	40	1.3
80	.70	20	.35
60	.45	0	.8

Hydrogen (H) + Ether ($C_4H_{10}O$)

Trautz and Ludewigs, 1929

%	t	η
26.08	12.6	8.96
26.37	13.3	8.94
26.35	14.8	8.99
26.35	100.6	11.26
26.54	100.5	11.19
26.54	149.3	12.52
26.57	149.8	12.46
26.52	212.9	13.90
26.62	213.0	13.86
13.27	13.6	9.33
13.27	14.7	9.37
13.27	15.0	9.37
13.27	100.5	11.46
13.39	100.4	11.48
13.27	149.7	12.61
13.39	150.4	12.63
13.39	213.0	14.02

Hydrogen (H_2) + Methyl alcohol (CH_4O)

Michels, 1953

P	mol % V	mol % L	P	mol % V	mol % L
		24.4°			
150	-	2.53	500	-	7.26
300	-	4.75	600	-	8.31
400	-	5.94	800	-	10.58
		49.4°			
300	-	5.19	800	-	12.24
500	-	7.98			
		75.0°			
84	1.99	1.84	400	0.69	-
121	1.55	2.56	500	-	9.17
150	1.31	-	600	0.62	-
250	0.95	-	800	0.61	13.86
300	-	5.87			
		99.3°			
100	3.96	-	300	1.79	6.53
120	3.54	-	400	1.53	-
150	2.66	-	500	-	10.46
200	2.37	-	600	1.29	-
250	2.10	-	800	1.08	15.66

Helium (He) + Propane (C_3H_8)

Tsiklis, 1955 (fig.)

P Kg	% L_1	% L_2	P Kg"	% L_1	% L_2
		105°			
200	55	55	2000	5	55
300	38	67	3000	3	57
600	25	62	4000	2	57
1000	15	48	5000	1	57
		110°			
300	50	50	3000	5	54
600	23	55	4000	4	54
1000	18	46	5000	2	54
2000	8	52			
		115°			
700	37	37	3000	6	51
1000	24	38	4000	5	52
1300	18	41	5000	4	52
2000	11	47			
		120°			
1300	30	30	4000	6	48
2000	13	45	5000	4	48
3000	8	48			
		130°			
2050	31	31	4000	8	45
3000	10	44	5000	7	45
3800	8	45			
		150°			
3800	30	30	5000	8	43
4000	18	38			

Helium (He) + Ethylene (C_2H_4)

Tsiklis, 1953 (fig.)

vol%	P Kg 16°	25°	50°	75°	100°	150°
5	1900	2100	3700	5400	7000	-
10	1300	1750	2500	3750	5500	9100
20	900	1100	1800	3600	5200	8800
40	450	550	1900	4000	6000	9550
50	400	500	2550	5000	7750	-
60	250	2000	5000	7000	10000	-
	850					
70	400	6600	-	-	-	-
	3750					
75	8000	-	-	-	-	-

Helium (He) + Propylene (C_3H_6)

Trautz and Husseini, 1934

mol%	η 20°	η 100°	η 200°	η 300°
100	8.44	10.76	13.39	14.67
78.7	9.53	11.84	14.56	15.74
60.5	10.63	12.96	15.70	16.95
43.4	11.99	14.52	17.46	18.77
33.1	13.11	15.79	18.75	20.15
12.4	16.56	19.58	22.91	24.50
0.0	19.43	22.85	26.74	28.57

Helium (He) + β-Butylene (C_4H_8)

Trautz and Husseini, 1934

mol%	η 20°	η 100°	η 200°	η 300°
100	7.47	9.44	11.92	13.01
75.4	8.43	10.64	13.17	14.34
60.6	9.33	11.55	14.18	15.54
43.7	10.73	13.08	15.84	17.39
35.8	11.50	14.02	16.93	18.43
19.2	14.00	16.85	20.12	21.75
0.0	19.43	22.85	26.74	28.57

Helium (He) + Carbon dioxide (CO_2)

Van Itterbeek and De Clippeleir, 1946

%	t	p	$(\varepsilon-1).10^6$
100	0.34	769	1008
93.342	0.47	751	878
86.658	0.39	759	801
73.988	0.21	757	653
55.653	0.47	763	490
100	20.08	774	948
98.871	26.33	753	933
97.147	26.70	771	911
94.474	26.48	760	875
91.436	26.58	759	831
83.748	26.28	763	761
80.900	26.28	754	720
60.375	25.47	747	517
93.447	39.72	763	885
87.088	39.58	759	724
80.159	39.32	772	653
61.972	38.99	781	506

Ewald, 1955

P	mol %	P	mol %	P	mol %
		-83°			
4.7	14.1	12.36	5.62	45.4	1.60
4.7	14.0	12.36	5.58	45.4	1.58
4.7	14.8	13.2	5.30	62.3	1.20
4.7	13.9	13.2	5.36	62.3	1.19
4.9	14.0	21.1	3.38	83.27	0.903
5.0	13.6	21.1	3.41	83.27	0.905
5.29	12.4	25.1	2.81	100.5	0.784
5.29	12.4	25.1	2.80	100.5	0.793
8.8	7.74	41.4	1.77	142.5	0.583
8.8	7.96	41.4	1.78	142.5	0.576

Pfefferle, Jr., Goff and Miller, 1955

compressibility constants at 30° = Z

mol%	$B.10^4$ (atm^{-1})	$C.10^6$ (atm^{-2})	$b.10^4$ (atm^{-1})	$c.10^6$ (atm^{-2})	$d.10^9$ (atm^{-3})
100	-47.52	-15.56	-47.52	-4.26	+8.3
96.483	-43.81	-12.08	-43.81	-2.49	+7.4
71.741	-21.06	-0.238	-21.06	+1.98	-
49.424	-6.496	+1.570	-	-	-
19.776	+4.067	+0.294	-	-	-
5.172	+4.769	+0.099	-	-	-
0	+4.778	+0.056	-	-	-

$Z = 1 + Bp + Cp^2$ and for mixtures rich in CO_2 :

$\ln Z = b\,(RT/v) + c\,(RT/v)^2 + d\,(RT/v)^3$

Edwards and Roseveare, 1942

mol %	B_{12} = Second virial coefficient (Amagat units . 10^4)
	25°
48.17 (?)	-16.1

Cottrell and Hamilton, 1956

t	Second virial coefficient (cc/mol)
50 mol %	
30	-16.1
60	- 8.7
90	- 5.3

Heath, 1953 (fig.)

%	η	%	η
	18°		
100	14.6	40	17.4
80	15.2	20	18.9
60	16.0	0	19.0

Argon (A) + Methane (CH_4)

Schröder, 1937 (fig.)

%	f.t.	m.t.	%	f.t.	m.t.
100	-183	-	40	-198.5	-203.5
80	-189.5	-194	20	-193.0	-197.0
60	-197	-202	0	-189.5	-
51	-205	-205			

Fedorova, 1939

%	f.t.	E	%	f.t.	E
100	-183.2	-183.2	50	-198.6	-202.2
85	-186.8	-192.1	45	-200.0	"
75	-190.2	-199.2	40	-201.4	"
70	-192.2	-201.2	30	-198.8	"
60	-195.0	-202.2	10	-192.2	-199.2
57	-197.0	-202.2	0	-189.1	-189.1

Masson and Dolley, 1923

P			Dv%		
vol%	24.7	49.95	59.85	70.72	90.06
			24.95°		
30	2.15	2.7	3.2	3.1	1.25
40	3.35	5.3	5.5	5.5	2.7
50	5.0	8.4	9.1	9.35	5.35
60	7.7	13.7	15.4	16.4	11.1
70	10.75	21.5	25.1	28.1	22.8
75	11.65	23.8	28.0	31.5	24.65
80	11.75	24.0	28.0	31.3	21.3
90	11.10	21.6	24.5	25.5	11.1
100	9.9	17.95	19.0	18.2	3.7
110	8.7	14.3	14.1	11.6	-0.05
120	7.5	10.9	9.7	6.4	-2.05
125	6.9	9.35	7.7	4.55	-2.65

* the % are calc. in volume at 1 atm.

Argon (A) + Ethylene (C_2H_4)

Jackson, 1956

mol%	η	mol%	η
	25°		
0.0	22.52	60.0	14.70
10.0	21.11	70.0	13.50
20.0	19.63	80.0	12.42
30.0	18.27	90.0	11.36
40.0	16.98	100.0	10.42
50.0	15.80		

Argon (A) + Benzene (C_6H_6)

Bennett and Vines, 1955 (fig.)

mol%		h . 10^6	
	78.0°	100.6°	125.0°
0	48.2	50.6	54.2
25	41.8	45.4	49.6
50	38.0	42.4	47.2
75	35.7	40.6	45.9
100	34.3	39.6	45.3

h = heat conductivity coefficient
(cal $cm^{-1}sec^{-1}deg^{-1}$)

Argon (A) + Perfluoro-n-pentane (C_5F_{12})

Newcome and Cady, 1956

mol%	p (Dew point)
25°	
100.0	646.6
76.2	868.0
57.6	1153.0

Argon (A) + Carbon dioxide (CO_2)

Kapp, 1907

%	d	U (ratio)*	%	d	U (ratio)*
			0°		
100	0.001965	1.2960	42.31	0.001857	1.4395
95.43	.001956	.3039	40.23	.001854	.4535
90.83	.001947	.3086	36.18	.001847	.4608
90.83	.001947	.3125	32.06	.001840	.4798
87.94	.001942	.3125	27.82	.001832	.4926
85.23	.001936	.3246	25.79	.001829	.5063
81.45	.001929	.3322	21.53	.001822	.5277
75.80	.001918	.3381	17.30	.001815	.5555
72.87	.001913	.3448	13.05	.001807	.5649
68.06	.001904	.3636	10.86	.001804	.5865
64.23	.001897	.3773	8.76	.001800	.5970
60.31	.001890	.3845	6.57	.001797	.6119
56.37	.001883	.3922	4.36	.001793	.6172
52.40	.001875	.4082	2.12	.001790	.6289
48.39	.001868	.4264	0.00	.001786	.6501

* U at const. press. / U at const. vol.

Argon (A) + Methyl alcohol (CH_4O)

Bennett and Vines, 1955 (fig.)

mol%	h . 10^6 78°	100°
0	48.5	51.0
25	50.0	53.4
50	49.4	53.6
75	48.2	53.0
100	46.7	52.2

h = heat conductivity coefficient

Krypton (Kr) + Methane (CH_4)

Thorp and Scott, 1956 (fig.)

mol%	p	mol%	p
	-157.7°		
0	505	60	840
20	640	80	920
40	760	100	990

Veith and Schröder, 1937 (fig.)

%	f.t.	m.t.	%	f.t.	m.t.
100	-183	-	40	-165.5	-170
80	-178	-180	20	-161	-165
60	-171	-176	0	-157	-

Eucken and Veith, 1936

t	U (cal/mole) 0%	15.6%	32.21%	50.22%	71.94%	100%*
-263	1.34	2.25	2.22	2.12	1.90	0.88
-260.5	2.07	2.55	2.63	2.53	2.40	1.50
-258	2.72	3.60	3.07	3.00	2.93	2.47
-255.5	3.23	3.70	3.52	3.46	3.46	-
-253	3.71	3.81	3.95	3.93	3.94	4.20
-248	4.44	4.74	4.73	4.71	4.67	4.96
-243	4.96	5.56	5.45	5.35	5.20	5.74
-238	5.32	6.20	6.03	5.81	5.62	6.38
-233	5.58	6.71	6.50	6.28	5.97	6.94
-228	5.82	7.10	6.92	6.61	6.26	7.42
-223	6.00	7.44	7.21	6.88	6.45	7.84
-218	6.15	7.76	7.48	7.06	6.68	8.22
-213	6.30	8.09	7.73	7.27	6.84	8.55
-208	6.45	8.34	7.96	7.44	7.00	8.84
-203	6.61	8.65	8.23	7.69	7.16	9.13
-198	6.78	8.94	8.46	7.90	7.35	9.41
-193	6.97	9.25	8.71	8.13	7.58	9.73

* data taken from Clusius

Krypton (Kr) + Carbon tetrafluoride (CF_4)

Thorp and Scott, 1956 (fig.)

mol%	p	mol%	p
	-156.1°		
0	590	60	450
20	550	80	305
40	510	100	75

Chlorine (Cl_2) + Toluene (C_7H_8)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
0.0	-101.5	53.1	-98.0
4.7	-105.5	57.9	-98.5
9.0	-107.0	64.1	-100.0
14.7	-110.5	72.7	-106.0
17.9	-112.0	77.5	-109.0
22.9	-108.0	80.3	-112.0
26.9	-106.0	84.2	-112.5
32.8	-102.0	87.4	-114.0
40.3	-101.5	90.7	-103.5
44.3	-102.5	96.0	-100.0
49.2	-99.5	100.0	-94.0

(1+1)

Chlorine (Cl_2) + Carbon tetrachloride (CCl_4)

Biltz and Meinecke, 1923

mol%	f.t. I	II	E
100	-22.5	-47	-
94.27	-34.0	-49	-
91.9	-37.5	-46	-
90.0	-41.5	-47	-115
88.0	-45.0	-48	-
85.5	-48.0	-	-
83.9	-50.5	-	-
79.2	-52.0	-	-115
76.4	-54.0	-	-
75.7	-55.0	-	-116
74.1	-55.5	-	-115
69.5	-57.5	-	-114
66.1	-63.0	-	-114
58.1	-69.0	-	-115
49.2	-79.0	-	-115
39.8	-93.0	-	-115
33.0	-102.0	-	-114.5
23.3	-	-	-114
10.1	-106.0	-	-115
0.0	-102.5	-	-

Wheat and Browne, 1938

mol %	f.t.	mol %	f.t.
100	- 22.5	36.4	-116.5
97.5	- 26.0	35.6	-122.0 E
93.2	- 33.5	35.3	-119.0
90.7	- 35.5	34.1	-115.0
87.9	- 42.0	33.3	-112.5 (2+1)
82.9	- 48.5	33.0	-113.0
79.4	- 57.5	31.7	-114.0
77.0	- 61.5	30.6	-115.5
74.2	- 72.0	30.0	-117.5
73.0	- 75.0	28.1	-122.0
71.7	- 81.0 E	27.5	-124.0 E
70.6	- 77.5	26.8	-122.0
69.2	- 72.0	26.0	-117.5
67.7	- 68.5	25.2	-115.5
66.7	- 67.0 (1+2)	25.0	-115.5 (3+1)
66.1	- 67.5	23.7	-116.5
64.7	- 71.0	23.2	-118.5
62.3	- 76.0	27.8	-122.0 E
61.6	- 79.5	21.7	-116.0
59.4	- 84.0	20.5	-114.5
57.5	- 88.5	20.1	-114.0
55.5	- 94.0	20.0	-114.0 (4+1)
54.4	- 98.0 E	19.5	-114.5
53.8	- 97.0	18.5	-117.0
51.9	- 93.0	18.3	-118.0 E
50.0	- 90.5 (1+1)	16.8	-113.0
48.0	- 92.0	15.0	-111.5
45.5	- 94.0	13.1	-110.0
43.0	- 97.5	9.1	-108.0
40.1	-102.0	4.8	-106.0
38.5	-106.5	0.0	-102.0
37.4	-108.5		

Chlorine (Cl_2) + Carbon dioxide (CO_2)

Thiel and Schulte, 1920

p	t	mol% L	mol% V
750	-79.43	17.5	93.2

Chlorine (Cl_2) + Ether ($C_4H_{10}O$)

Mc Intosh, 1911

%	f.t.	%	f.t.	%	f.t.
100	-118	65.2	-55	20.0	- 74
97	- 99	55.7	-50	16.4	- 85
95	- 89	53.5	-49	13.4	- 95
90.5	- 80	42.7	-53	11.4	- 97
81.7	- 71	35.9	-55	6.8	-103
80.8	- 70	28.7	-60	2.2	-101.5
76.2	- 65	26.8	-63	0.0	-101.5
70.0	- 58				

(1+1)

Chlorine (Cl_2) + Acetone (C_3H_6O)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
0.0	-101.5	40.6	-56.0
0.9	-101.5	47.1	-54.5
2.4	-102.5	50.8	-55.5
4.2	-103.0	54.8	-55.5
6.9	-103.5	57.7	-58.5
9.9	-102.5	62.9	-60.3
12.7	-98.5	66.8	-64.5
20.7	-76.0	71.9	-70.0
25.3	-66.0	74.7	-71.0
28.4	-62.0	78.0	-75.0
32.0	-59.5	80.0	-79.0
35.0	-57.0		

(1+1) f.t. = -54°

Chlorine (Cl_2) + Ethylene oxide (C_2H_4O)

Maass and Boomer, 1922

%	f.t.	%	f.t.
0	-100.3	47.4	-80.2
6.7	102.4	50.8	79.3
18.6	84.5	54.5	79.0
28.7	83.6	57.2	78.9
34.9	82.6	60.6	79.5
41.1	83.6	100.0	-111.3
44.5	-81.4		

(1+2) (3+2)

Chlorine (Cl_2) + Ethyl acetate ($C_4H_8O_2$)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
0.0	-101.5	39.1	-68.2
1.0	101.5	50.8	70.0
2.7	102.5	58.6	73.0
7.2	104.0	63.8	74.3
10.6	95.0	69.3	78.0
13.7	88.5	73.6	81.0
17.5	82.3	77.2	84.5
21.6	78.0	82.7	89.5
24.0	76.0	87.3	89.0
27.8	72.0	90.8	86.0
33.2	-70.0	100.0	-83.0

(3+1) f.t. = -68°

Bromine (Br_2) + Amylene (C_5H_{12})

Kurnakov, Voskresenskaya and al., 1938

mol%	d	η	mol%	d	η
		25°			
100	0.6551	223	40	2.0499	2816
90	.8363	298	30	.2552	2286
80	.9959	401	20	.6188	1748
70	1.1835	609	10	.8583	1424
60	.6502	2414	0	.9998	966
50	.8455	3547			

Bromine (Br_2) + Phenylacetylene (C_8H_6)

Kurnakov, Voskresenskaya and al., 1936

mol%	d	η	mol%	d	η
		25°			
100	0.9250	880	40	2.1397	3146
90	1.0520	1093	33.3	.3612	7718
80	.1999	1402	30	.4351	2415
70	.3740	1975	20	.5998	6914
60	.5804	3082	10	.8051	1832
50	.8289	5901	0	.9998	971

Bromine (Br_2) + Chloroform ($CHCl_3$)

Sameshina and Hiramatsu, 1934

mol%	f.t.	mol%	f.t.
100.0	-63.5	71.74	-45.7
96.22	-66.2	66.52	-41.0
91.28	-68.9	58.83	-35.0
89.08	-70.3	55.03	-32.7
87.34	-71.5	47.48	-27.8
85.85	-67.4	37.97	-23.5
84.86	-63.8	28.14	-18.8
82.15	-60.0	17.57	-14.5
80.77	-56.8	10.06	-12.0
79.28	-53.5	6.03	-9.7
75.65	-48.2	0.00	-7.3

Bromine (Br_2) + Bromoform ($CHBr_3$)

Wright, 1916

%	t	p	p (100%)
14.82	18.1	141.5	156.5
15.28	18.1	140.0	-
23.38	18.7	134.5	160.7

Bromine (Br_2) + Carbon tetrachloride (CCl_4)

Sameshima and Hiramatsu, 1934

mol%	f.t.	mol%	f.t.
100.00	-22.9	67.92	-38.5
98.60	-24.3	59.40	-32.1
95.20	-30.0	53.50	-28.1
91.32	-36.4	44.68	-25.0
89.01	-42.0	37.89	-22.1
87.26	-44.6	32.51	-20.0
84.90	-47.5	25.62	-17.5
82.74	-47.6	20.22	-15.2
79.95	-46.7	14.91	-13.1
78.51	-45.8	7.80	-10.6
77.19	-44.8	3.50	-8.9
73.85	-40.8	0.00	-7.3

Barthel and Dode, 1954

mol%	p_1	p_2	mol%	p_1	p_2
			0°		
99.9238	0.094	33.80	61.78	36.50	24.20
99.9064	.120	33.85	61.41	36.63	24.32
99.8418	.200	33.82	51.00	43.67	20.52
99.521	.585	32.07	50.62	42.84	20.27
99.043	1.26	33.15	33.72	51.11	16.82
97.80	2.86	33.38	14.77	60.55	10.63
95.21	6.36	31.35	14.33	60.66	10.20
94.55	7.14	32.41	8.80	62.74	7.33
88.22	14.36	30.77	8.06	62.71	6.85
75.47	26.98	27.20	0	67.90	-
75.18	27.00	26.84			

Bromine (Br_2) + Carbon tetrabromide (CBr_4)

Biltz and Meinecke, 1923

mol%	f.t.	mol%	f.t.
100	+90	61.4	+19
96.22	+72	55.9	+13
91.6	+63.5	47.0	+1
85.8	+46	44.5	-3
82.7	+42.5	29.3	-17.5
73.9	+32	20.3	-20.0
64.8	+30	10.8	-14.5
66.1	+25		

Bromine (Br_2) + Ethyl bromide (C_2H_5Br)

Wroczynski and Guye, 1910

mol%	f.t.	mol%	f.t.
0	-7.3	66.9	-88.2
13.5	-21.1	70.5	-91.2
25.8	-31.6	74.8	-96.8
30.0	-35.8	77.0	-97.6
31.0	-40.7	78.1	-99.6
33.3	-42.7	79.3	-102.1
47.3	-53.4	81.4	-102.6
51.0	-78.5	84.1	-107.6
56.7	-81.5	95.7	-116.5
63.2	-84.1	100.0	-115.5

Bromine (Br_2) + 1,1,2-Trifluor-1,2,2-trichlorethane ($C_2F_3Cl_3$)

Spicer and Meyer, 1951

b.t.	mol% V	mol% L	b.t.	mol% V	mol% L
47.6	100	100	41.2	47.7	33.1
45.7	89.5	95.1	42.0	44.9	16.1
44.2	80.3	89.7	43.4	41.0	11.1
43.4	75.2	86.8	46.1	37.0	8.1
42.5	69.3	80.0	51.6	20.9	2.7
41.0	54.5	54.5	58.9	0	0

Bromine (Br_2) + Difluortetrachlorethane asym. ($C_2F_2Cl_4$)

Spicer and Meyer, 1951

b.t.	mol% V	mol% L	b.t.	mol% V	mol% L
91.6	100	100	57.9	11.1	12.8
89.0	85.1	97.3	57.8	9.2	9.2
77.6	53.9	86.2	57.9	7.5	6.5
71.0	40.0	76.2	58.4	1.9	0.9
64.8	27.4	61.1	58.9	0.0	0.0
61.5	22.2	49.2			

Bromine (Br_2) + 1,1,1,3,3-Pentafluor-2,2,3-Trichlorpropane ($C_3F_5Cl_3$)

Spicer and Meyer, 1951

b.t.	mol% V	mol% L	b.t.	mol% V	mol% L
72.5	100	100	53.0	29	3.9
66.6	78.3	95.1	55.7	20	2.2
62.7	65.8	91.3	56.5	19	1.9
59.5	56.6	87.4	56.8	-	1.5
58.1	55.7	85.4	57.6	-	0.5
51.0	-	62.5	58.9	0.0	0.0
49.1	30.5	-			

t	mol% L_1	mol% L_2	t	mol% L_1	mol% L_2
0.0	73.0	2.6	40.1	53.2	5.8
20.3	64.6	2.9	45.4	49.6	6.5
35.3	56.6	4.6	48.0	47.1	7.4

Bromine (Br_2) + Dibromacetylene (C_2Br_2)

Kurnakov, Voskresenskaya and al., 1938

mol%	d	η	mol%	d	η
		25°			
100	2.2622	936	40	2.9262	4294
90	.3956	1298	30	.9572	2960
80	.5274	1756	20	.9744	1971
70	.6618	2425	10	.9934	1320
60	.7970	4315	0	.9998	971
50	.9051	5743			

Bromine(Br_2) + α-Trifluortoluene ($C_7H_5F_3$)

Spicer and Meyer, 1951

b.t.	mol% V	mol% L	b.t.	mol% V	mol% L
103.9	100.0	100.0	61.0	13.5	37.0
96.5	75.1	96.6	58.4	5.8	6.6
90.2	61.4	92.0	58.1	3.3	3.3
80.1	42.2	82.5	58.5	2.2	1.2
71.1	26.4	70.2	58.9	0.0	0.0

Bromine (Br_2) + Carbon anhydride (CO_2)

Francis, 1954

t	% L_1	% L_2
25	8	98

Bromine (Br_2) + Carbon disulfide (CS_2)

Arctowski, 1896

%	f.t.
54.6	-95
61.0	-110.5
63.1	-116.0

Bromine (Br_2) + Methyl ether (C_2H_6O)

Bruns, 1927

%	molar volume (in l.)
	-70°
21.4	0.170
14.8	.135
28.4	.092
10.5	.142
5.2	.155

%	κ	t	κ
-70°		5.2%	
21.4	0.0828	-50	0.0451
14.8	.0826	-34	.0609
28.4	.0668	-18	.0806
10.5	.0428	-13	.0876
5.2	.0300		

Bromine (Br_2) + Ethyl ether ($C_4H_{10}O$)

Parmentier, 1892

% (3+2)	f.t.
86.32	-13
84.87	0
82.21	+12
75.12	+22.5
71.67	+32

(3+2)

Mc Intosh, 1911

%	f.t.	%	f.t.
100	-118	42.7	-45
97.4	-119	39.2	-42
90.4	-119.5	33.6	-40
85.6	-107	31.6	-38
81.6	-96	25.9	-12
77.0	-87	23.6	+23
75.4	-82.5	21.4	+20
70.5	-75	17.3	+0.5
64.4	-66	15.4	-10
59.2	-59.5	12.2	-21
55.1	-56	8.5	-20
51.4	-51	6.0	-11
48.2	-48	0.0	-7

Plotnikow, 1906

%	κ	%	κ
	0°		
3.5	17	16.1	44
5.0	21	17.1	42
5.4	29	17.9	45
6.4	34	18.0	45
8.7	38	18.4	44
9.1	41	20.5	43
11.2	50	23.75	40
11.7	49	25.9	40
13.5	46	27.9	39
15.9	38	97.7	1.3
15.9	44		

(3+2) f.t. = 22° 55-70% L_1+L_2

Bromine (Br_2) + Propyl ether ($C_6H_{14}O$)

Kurnakov, Voskresenskaya and al., 1938

mol%	d	η	mol%	d	η
		25°			
100	0.7432	418	17	2.0484	4801
30	1.6472	10320	10	2.3941	3003
25	.7910	11260	0	3.1018	983
22.5	.8651	10560			

Bruns, 1927

%	molar volume (in l)
-70°	
10.5	0.36
2.5	1.40
4.8	0.75
7.1	0.55
18.5	0.27

%	κ
-70°	
2.5	14.9
4.8	48.2
7.1	128
10.5	138
18.5	126

Bromine (Br_2) + Isoamyl ether ($C_{10}H_{22}O$)

Bruns, 1927

%	molar volume (in l)
-70°	
18.3	0.40
23.2	0.35

%	κ
-70°	
18.3	18.7
23.2	19.7

Bromine (Br_2) + Methylal ($C_3H_8O_2$)

Bruns, 1927

%	κ	%	κ	%	κ
			-70°		
dried on $CaCl_2$		dried on Na		dried on P_2O_5	
6.8	205	8.3	260	2.8	47
10.3	343	13.1	414	8.4	191
19.4	456	18.1	374	13.6	329
22.5	409	22.3	333	18.1	334
25.0	370	27.5	328	21.3	337
28.1	352	33.3	241	25.2	245
35.1	264	38.9	179	28.6	260
		43.1	137	34.6	169
		47.2	103	38.9	156
		50.8	81	44.1	145

Bromine (Br_2) + Methyl-benzyl-ether ($C_8H_{10}O$)

Kurnakov, Voskresenskaya and al., 1938

mol%	d		η	
	0°	25°	0°	25°
100	0.9906	0.9648	1622	1064
75	1.1469	1.1172	2801	1582
50	.4008	.3562	5584	2242
40	-	.4766 ?	-	-
33.3	1.6900	.6234	1176	3060
32	-	.6250 ?	-	-
30	1.7518	.6958	1201	3170
27.5	.7771	.7201 ?	1793	3204
25	.8770	.8100	1932	3140
22.5	.9607	.9070	1755	3650
20	-	.9591	-	-
17	2.2010	2.1155	9993	3408
10	2.5083	2.4489	6441	2734
0	3.1891	3.1018	1243	983

Bromine (Br_2) + Dibenzyl ether ($C_{14}H_{14}O$)

Kurnakov, Voskresenskaya and al., 1938

mol%	d		η	
	0°	25°	0°	25°
100	1.0587	1.0365	9561	4220
50	1.4011	1.4755	14150	4503
25	1.6956	1.6472	17140	4780
10	2.3409	2.2711	7430	3341
0	3.1891	3.1018	1243	983

Bromine (Br_2) + Ethylene oxide (C_2H_4O)

Maass and Boomer, 1922

%	f.t.	%	f.t.
0	-7.3	29.4	-52.5
1.8	-14.1	31.2	-51.3
3.7	-21.2	33.0	-50.9
5.4	-27.7	36.3	-50.7
10.6	-40.2	39.3	-50.8
12.3	-46.0	42.4	-51.2
13.9	-55.2	45.3	-52.0
15.4	-56.1	48.0	-52.7
18.3	-53.1	50.4	-53.7
20.9	-51.4	52.8	-55.6
23.4	-51.4	100.0	-111.9
27.1	-52.8	(1+2)	(1+1)

Bromine (Br_2) + Dichlorether ($C_4H_8OCl_2$)

Bruns, 1927

%	κ	%	κ
	-70°		
11.6	0.686	54.1	4.51
35.0	4.12	59.1	3.73
39.6	3.94	69.1	2.91
47.6	5.43		

t	κ	t	κ
	8.7%	26%	
0	0.115	-10	0.352
-5	.139	-5.5	.351
-9	.165	+0.5	.351
-12	.170	+10	.351
		+18	.314

Bromine (Br_2) + Ethyl-brompropyl ether ($C_5H_{11}OBr$)

Kurnakov, Voskresenskaya and al., 1938

mol%	d	η	mol%	d	η
		25°			
100	1.2431	1053	25	2.0978	10480
50	.6764	3504	15	2.4395	4360
33.3	.8819	7678	0	3.1018	983
29	.9785	9550			

Bromine (Br_2) + Acetone (C_3H_6O)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
0	-7.3	39.7	-12
6.8	22.0	47.3	17.5
11.0	29.0	52.2	22
16.3	28.0	56.2	26
19.5	19.0	63.6	34
26.2	7.5	73.5	48
32.6	8.0	88.3	-79
35.7	-9.5	(1+1)	f.t. = -8

Bromine (Br_2) + Ethyl acetate ($C_4H_8O_2$)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
0.0	-7.3	42.8	- 39.5
0.4	8.0	47.7	42.5
4.2	12.5	53.2	47.5
6.4	15.0	56.3	50.0
10.8	23.0	58.9	52.0
14.8	27.0	63.3	56.5
17.0	33.0	66.9	60.0
19.9	36.0	78.4	64.5
22.6	36.5	79.4	68.5
24.5	36.0	86.1	72.0
28.3	35.0	89.1	77.0
30.6	34.5	93.4	84.0
35.7	36.5	97.0	84.5
36.4	36.5	98.0	84.0
38.9	-37.0	100.0	- 83.0

(3+2) f.t. = -35°

Bromine (Br_2) + Methyl alcohol (CH_4O)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
0.0	-7.3	42.3	-70.0
1.5	-9.7	45.4	-72.0
4.1	-12.0	48.4	-74.5
5.8	-14.8	50.9	-77.5
7.7	-16.5	55.3	-83.5
11.4	-23.0	59.1	-88.0
17.6	-36.0	62.3	-90.0
20.7	-45.5	65.0	-95.5
24.8	-55.5	78.7	-103.5
28.1	-64.0	82.3	-102.0
32.1	-65.0	94.1	-99.0
34.7	-66.0	100.0	-97.0
38.1	-67.5		

(1+1) f.t. = -66

Next Page

Bromine (Br_2) + Ethyl alcohol (C_2H_6O)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
0.0	-7.3	28.4	-73.5
1.3	-7.8	32.4	69.0
5.1	12.0	35.9	67.5
8.5	17.5	40.1	70.0
12.4	34.5	45.3	73.5
15.5	40.0	51.2	77.5
18.3	46.5	55.4	82.0
21.3	53.0	60.6	87.0
24.2	-64.0	65.8	-91.0

(1+1) f.t. = -58°

Bromine (Br_2) + Pyridine (C_5H_5N)

Plotnikov and Mikhailovskaya, 1938

mol%	f.t.	mol%	f.t.
0	-7.46	6.96	-14.9
1.12	-7.81	10.74	+34.4
2.80	-9.3	10.80	+35.0
4.27	-16.8	12.24	+49.5
4.53	-7.5	15.10	+15.2
6.37		16.84	+34.2

Bromine (Br_2) + Pyridine hydrobromide (C_5H_6NBr)

Lombard and Heywang, 1952 (fig.)

%	f.t.	%	f.t.
100	225	67	101
90	200	60	125
80	155	50	135
70	93 E	(1.5+2)	(1+1)

Bromine (Br_2) + Tetramethyl-ammonium bromide ($C_4H_{12}NBr$)

Bloch, Farkas and al., 1949 (fig.)

mol%	f.t.	mol%	f.t.	
50	118.5(1+1)	6	8.0	
40	79	5.3	-5.2	(16+1)
35	51	4	-5.1	
30.1	15.8 E	2	-4.7	
25	45	1	-4.0	
20	56.5(4+1)	0.3	-7.5 E	
15	51	0	-7.3	
10	24			
8	15.3			

Bromine (Br_2) + Acetamide (C_2H_5ON)

Plotnikov and Jakubson, 1935

%	D f.t.	%	D f.t.
1.36	-0.155	5.62	-2.66
2.11	-0.191	5.72	-2.94
3.20	-0.460	6.67	-4.12
4.12	-0.750	7.58	-7.70
4.68	-1.480	8.10	-7.45

18°

%	κ	%	κ
0.84	5.4	16.00	364
1.70	37.2	17.34	322
3.15	160	21.45	280
3.37	128	21.57	252
6.07	239	22.06	231
7.52	376	25.74	182
9.50	398	26.30	175
10.69	433	28.81	160
11.34	420	30.93	120
12.50	421	32.82	106
14.11	380	35.21	85.7
15.31	366	37.27	73.7

Bromine (Br_2) + Benzamide (C_7H_7ON)

Finkelstein, 1926

%	D f.t.	%	D f.t.
0.35	-0.086	7.63	-0.502
1.37	-0.207	9.07	-0.590
2.13	-0.252	9.63	-0.602
3.48	-0.296	12.51	-1.006
3.53	-0.308	15.41	-1.530
5.94	-0.391	17.80	-2.202
7.26	-0.466		

(1+1)

%	d^{18}
3.29	2.985
7.67	2.844
11.45	2.644
16.41	2.513
25.45	2.238

%	d^{75}
27.74	2.096
34.27	1.943
42.47	1.786

%	κ		%	κ
0.24	0.0021	18°	8.07	148.8
.38	.0073		9.38	168.0
.75	.147		10.41	185.3
.80	.233		10.90	191.0
1.17	1.84		11.54	190.8
1.18	1.31		12.61	194.1
1.55	3.84		13.38	201.8
2.00	9.81		14.76	204.0
2.31	13.47		15.78	199.6
2.71	21.30		16.41	202.4
3.74	43.92		16.94	200.7
4.43	61.17		17.31	195.4
5.21	81.99		19.09	187.4
5.48	87.71		20.37	178.5
5.50	87.36		22.34	158.2
6.39	131.7		23.83	136.4
7.67	137.4		27.85	105.3
7.80	143.4			

%	κ	%	κ
75°			
25.04	351	41.90	144
27.85	342	42.16	178
36.93	230	42.47	169
41.24	192	42.78	175
41.51	171	43.01	177

t	κ	t	κ	t	κ
6.39%		13.38%		16.41%	
0.05	107.8	0.45	154.5	13.15	187.3
18.00	131.7	6.00	170.1	18.00	202.4
24.90	139.4	11.70	182.3	23.80	222.3
30.90	146.4	18.00	201.8	32.80	254.7
37.80	157.6	24.10	222.0		
		30.10	238.4		

Iodine (I_2) + Benzene (C_6H_6)

Waentig, 1909

% L	% V	p	p_1	p_2
at b.t.				
94.97	99.19	755.0	1.89	753.11
76.60	96.67	752.3	7.89	744.41
58.37	94.48	746.8	13.17	733.63
43.71	92.80	746.4	17.31	729.09

%	f.t.
78.44	20
77.54	25
76.60	30
75.97	35
75.47	40

Q diss (room temp.) -18.43 cal/g I_2

Krüss and Thiele, 1894

%	D b.t.	%	D b.t.
98.95	+0.11	89.27	+1.31
98.71	.135	82.45	2.30
98.33	.18	76.70	3.22
98.21	.20	71.59	3.98
95.65	.47	67.11	4.75
94.11	.69		

Arctowski, 1896

%	f.t.
91.92	+4.7
91.37	+6.6
90.40	+10.5
89.56	+13.7
88.77	+16.3

Hildebrand and Jenks, 1920

%	f.t.	%	f.t.
85.91	25	77.22	45
83.90	30	74.49	50
82.10	35	71.74	54.64
79.95	40		

Grunert, 1927

%	d 20°	d 40°	d 60°
100	0.87806	0.85752	0.83645
97.6765	.89446	.87308	.85172
95.6143	.90924	.88794	.86630
91.4414	.94113	.91938	.89710

Iodine (I_2) + Chloroform ($CHCl_3$)

Waentig, 1909

% L	% V	p	p_1	p_2
			at b.t.	
96.86	99.54	755.2	1.63	753.57
93.49	99.12	753.6	3.13	750.47
91.45	98.87	734.5	3.90	730.6
90.09	98.72	750.0	4.50	745.5

%	f.t.
87.58	20
86.80	25
86.08	30
85.17	35
84.42	40

Q diss (room temp.) -21.58 cal/g I_2

Iodine (I_2) + Iodoform (CHI_3)

Olivari, 1911

mol%	f.t.	mol%	f.t.
100	119.5	40	85
90	114	30	88
80	109.5	20	98
70	101	10	105.5
60	95	0	112.5
50	90		

Van de Vloed, 1939

mol %	f.t.
90.80	117.5
64.00	92.0
43.20	72.5
24.00	82.0
9.10	105.5
0.00	114.0

Iodine (I_2) + Carbon tetrachloride (CCl_4)

Waentig, 1909

%	f.t.
89.49	20
88.73	25
87.92	30
87.19	35
86.38	40

Iodine (I_2) + Ethylene bromide ($C_2H_4Br_2$)

Negishi, Donnally and Hildebrand, 1933

%	f.t.	%	f.t.
93.443	8.00	86.34	35.07
93.150	10.00	82.57	45.00
92.141	15.00	80.88	49.60
90.909	20.00	74.06	60.00
89.62	24.80	66.70	70.00
89.68	25.00	62.39	75.00
88.12	30.02	60.15	76.50
86.86	34.20	57.60	78.40
86.58	35.00		

Iodine (I_2) + p-Dibrombenzene ($C_6H_4Br_2$)

Olivari, 1911

mol%	f.t.	mol%	f.t.
100	88	50	99
90	84.5	30	101.5
80	79.6	20	104
74	78.5	10	107.5
70	86	0	112.5
60	94		

Iodine (I_2) + Carbon dioxide (CO_2)

Francis, 1954

% L_1	% L_2	t
-	99.8	25

Iodine (I_2) + Carbon disulfide (CS_2)

Waentig, 1909

% L	% V	p	p_1	p_2
		at b.t.		
97.14	99.95	755.2	0.120	755.08
68.22	99.33	762.8	1.536	761.26

Krüss and Thiele, 1894

%	D b.t.	%	D b.t.
99.03	+0.09	89.47	+1.11
98.09	.175	81.23	2.11
97.02	.275	74.59	3.09
95.49	.43	69.84	+3.18
92.46	+0.77		

Arctowski, 1905

%	f.t.	%	f.t.
99.68	-100	93.42	-5
99.63	-95	92.11	0
99.59	-90	90.79	+5
99.54	-85	89.49	10
99.49	-80	87.65	15
99.45	-75	85.38	20
98.738	-63	83.08	25
96.53	-25	80.74	30
95.86	-20	77.33	36
95.18	-15	74.78	40
94.48	-10	73.25	42

Waentig, 1909

%	f.t.
76.22	20
74.95	25
73.72	30
72.31	35
70.96	40

Hildebrand, Benesi and Mower, 1950

wt%	mol%	f.t.
92.32	97.56	0.0
83.54	94.42	25.0
78.39	92.36	35.0

Pomilio, 1911

c*	η	c	η
	25°		
0	402.1	5.40	410.0
0.68	402.7	10.80	428.3
1.36	405.1	21.26	450.5
2.75	408.6		

* g I_2 in 100 cc

Waentig, 1909

Q diss (room temp.) -20.64 cal/g I_2

Iodine (I_2) + Ether ($C_4H_{10}O$)

Waentig, 1909

% L	% V	p	p_1	p_2
		at b.t.		
96.41	99.98	757.3	0.0406	757.26
83.83	99.91	757.8	.194	757.61
72.06	99.82	748.8	.388	748.41
70.91	99.81	751.2	.400	750.8

Q diss (room temp.) -7.87 cal/g I_2

Krüss and Thiele, 1894

%	D b.t.(ether)	%	D b.t. (ether)
99.743	+0.021	86.68	+1.29
98.92	.09	85.42	1.375
97.40	.23	78.29	2.285
95.79	.36	73.78	2.545
94.79	.465	71.13	+2.78
93.65	+0.575		

Arctowski, 1896

%	f.t.
85.42	-90
84.91	-108
84.61	-83

Jacek, 1915

%	f.t.	%	f.t.
86.89	-108	85.42	-45.75
86.77	-102.75	85.63	-45
86.54	- 94.5	84.97	-40.25
86.80	- 94	84.57	-38
86.60	- 83.25	84.92	-35
86.72	- 80.5	84.29	-34.75
86.46	- 75	84.21	-33
86.09	- 63	83.85	-27.5
86.14	- 62.5	83.98	-25.75
86.14	- 58.75	83.55	-24.5
85.88	- 51.5	83.06	-21
85.77	- 49.5	82.79	-19.5
85.71	- 48.75	82.25	-14.75
85.41	- 47	79.34	- 0

Hildebrand, Benesi and Mower, 1950

wt %	mol %	f.t.
80.66	83.46	0.0
74.78	91.04	25.0
71.50	89.57	35.0

Pomilio, 1911

c	η	c	η
	25°		
0	240.0	5.20	253.9
0.67	239.0	9.50	268.0
1.32	241.7	18.97	299.7
2.62	247.7		

c = g iodine in 100 cc

Iodine (I_2) + Ethyl alcohol (C_2H_6O)

Hildebrand, Benesi and Mower, 1950

wt %	mol %	f.t.
83.33	96.49	0.0
78.62	95.29	25.0
75.30	95.41	35.0

Waentig, 1909

Q diss. (room temp.) = -7.66 cal/g iodine

Iodine (I_2) + Isoamyl alcohol ($C_5H_{12}O$)

Kosakewitsch P.P. and M.S., 1933

mol %	d
23°	
100	0.809
98.46	0.827
97.46	0.840
95.82	0.860

Iodine (I_2) + Acetic acid ($C_2H_4O_2$)

Waentig, 1909 (fig.)

%	f.t.
20	88.38
25	87.75
30	87.07
35	86.49
40	85.96

Iodine (I_2) + Benzoic acid ($C_7H_6O_2$)

Oliveri, 1911 (fig.)

mol %	f.t.	mol %	f.t.
100	123	40	112.0 L_1+L_2
90	116.5	30	"
80	111	20	"
72	108	10	"
60	111	0	112.5
50	111.5		

Iodine (I_2) + Benzoic anhydride ($C_{14}H_{10}O_3$)

Oliveri, 1911 (fig.)

mol%	f.t.	mol%	f.t.
100	40	40	111 L_1+L_2
95	36.5	30	"
90	52	20	"
80	74	10	"
70	89	5	"
60	101	0	112.5
50	110		

Iodine (I_2) + Ethyl acetate ($C_4H_8O_2$)

Waentig, 1909 (fig.)

%	f.t.
20	78.01
25	76.48
30	75.17
35	75.17
40	75.30

Iodine (I_2) + Benzidine ($C_{12}H_{10}N_2$)

Oliveri, 1911 (fig.)

mol%	f.t.	mol%	f.t.
100	68	40	99
90	65	30	100.5
80	61	20	103.5
70	57	10	106
60	85	0	112.5
50	95		

Iodine (I_2) + Pyridine (C_5H_5N)

Courty, 1938

%	f.t.	χ
100	-22	-0.623
93.4	-22	-0.609
87.49	-22.2	-0.599
84.2	-20	-0.580
83.3	-20	-0.573

Waentig, 1909

Q diss. (room temp.) = 17.69 cal/g I_2

Iodine (I_2) + Tetramethylammonium iodide ($C_4H_{12}NI$)

Olivari, 1908

mol%	f.t.	mol%	f.t.	
0	112	26.25	98.2	
7.767	101	27.08	105.5	
12.9	93.8	29.80	124.0	
14.9	92	30.52	125.1	
16.0	98	31.89	126.5	
16.86	103	33.31	125.85	
18.0	106	35.08	124.2	
19.27	106.7	38.44	117.0	
20.0	106.4	40.16	110.0	
20.23	105.5	43.14	102.5	
21.67	103.6	46.62	115.5	
22.79	98.5	49.62	118.5	
23.82	98.4	52.18	117.5	(4+1)
24.93	98.3	54.78	117.6	(2+1)

Iodine (I_2) + Trimethylphenylammonium iodide ($C_9H_{14}NI$)

Olivari, 1908

mol%	f.t.	mol%	f.t.	
0	112	29.39	78.0	
4.20	93.7	30.76	82.7	
8.75	75.6	33.15	83.4	
11.20	58.0	34.07	83.3	
13.31	46.4	35.04	83.0	
13.80	45.3	35.98	82.2	
18.46	54.0	36.90	80.8	
19.67	55.25	38.10	81.21	
20.41	55.20	40.52	91.5	
21.21	55.15	46.30	101.2	
22.06	58.20	46.70	110.0	
23.50	62.15	48.90	112.4	(1+1)
24.51	63.10	51.90	112.0	
25.22	63.20	66.00	108.0	
25.89	63.50	58.70	104.9	
26.50	66			

Iodine (I_2) + p-Dinitrobenzene ($C_6H_4O_4N_2$)

Olivari, 1911 (fig.)

mol%	f.t.	mol%	f.t.
100	90	40	110
90	86	30	"
83	83.5	20	"
80	90	10	"
70	110	5	"
60	110 L_1+L_2	0	112.5
50	110		

Oxygen (O_2) + Ethylene (C_2H_4)

Masson and Dolley, 1923

P	$\frac{Dv}{V_0} \cdot 100$		
	25.27%	49.91%	59.84%
30	-2.4	-3.1	-3.7
40	3.6	5.3	6.1
50	5.4	8.5	9.8
60	7.9	13.8	16.3
70	11.4	20.7	26.3
75	12.4	24.0	29.3
80	12.6	24.2	29.5
90	12.0	21.9	26.1
100	10.8	18.9	21.0
110	9.5	14.7	16.1
120	8.3	11.3	11.7
125	7.7	9.7	9.6

Trautz and Melster, 1930

mol %	η		
	20°	50°	100°
0	20.19	21.81	24.33
4.21	19.67	21.25	23.76
13.06	18.54	20.04	22.43
41.45	15.29	16.58	18.65
60.81	13.41	14.54	16.45
77.03	11.98	13.08	14.79
100.00	10.10	11.07	12.62

Oxygen (O_2) + Acetylene (C_2H_2)

Baccei, 1899

Absorption spectrum.

w.l.	Pm*				
	0%	25vol%	50vol%	75vol%	100%
red	-	-	11.5	7	5.5
6421	-	-	12.5	8.5	6
6417	-	12	6	4	3
6395	-	7.5	4	3	2
5707	-	-	15	10	7.5
5435	-	-	12.5	8.5	6
5419	-	12	7.5	5	3.5
A	4	6	7.5	16	-
B	2.5	3.5	5	10	-
D	7	9	14	-	-

*minimum pressure (in atm.) where absorption spectrum can be seen.

Oxygen (O_2) + Carbon monoxide (CO)

Trautz and Melster, 1930

mol%	η		
	26.9°	126.9°	226.9°
100	17.76	21.83	25.48
82.28	18.24	22.50	26.26
76.63	18.41	22.68	26.50
57.99	19.00	23.43	27.41
40.73	19.48	24.07	28.20
22.67	19.98	24.82	29.08
18.06	20.12	25.01	29.28
0	20.57	25.68	30.17

Mallard and Le Chatelier, 1880

vol%	temp. of explosion
85	630 - 650
70	645 - 650
30	650 - 680

Michelson, 1889

vol %	exp. vel.	vol %	exp. vel.
25	30	65	88
30	40	70	91
35	49	75	91
40	58	80	85
45	66	85	70
50	73	90	45
55	80	95	20
60	84		

exp. vel. = explosion velocity (cm/sec.)

Coward, Cooper and Jacobs, 1914

vol%	p explosion	vol%	p explosion
94.0	400	37.5	24
93.9	175	35.3	27
92.5	108	33.3	32
91.0	99	25.0	74
88.9	81	20.0	92
85.7	78	18.4	106
80.0	56	17.0	124
75.0	46	16.0	135
66.7	51	15.0	148
50.0	30	14.3	340
40.0	26		

Oxygen (O_2) + Carbon dioxide (CO_2)

Keesom, 1903

condensation					
beginn.			end		
t	v*	P	t	v*	P
80.06 mol %					
10.06	9233.5	66.35	10.09	3205	102.485
12.155	8190.5	71.57	12.20	3633	100.055
14.125	7125.5	77.29	14.11	3994.5	97.375
16.01	5803	86.02	16.00	4784	92.57
16.23	5530	87.84	16.22	5156	90.55
89.53 mol %					
17.535	8552	66.08	11.68	2597	85.52
17.63	8483	66.40	14.78	2757	87.09
19.48	7708	69.48	17.525	2949	88.25
20.19	7362	71.59	17.68	2986	88.29
20.28	7288	71.94	19.38	3195	88.465
21.48	6709	74.85	20.19	3292	88.35
22.06	6456	76.24	20.28	3323	88.35
22.38	6098	77.85	21.48	3664	87.35
22.83	5860	79.24	22.09	3880	86.58
22.87	5822	79.26	22.43	4069	86.03
22.98	5697	79.95	22.80	4301	85.34
23.23	5366	81.46	22.885	4324	85.12
			22.98	4441	84.90
			23.18	4663	84.16
100 %					
30.05	5594	71.47	30.11	3328	71.53
30.82	4833	72.725	30.81	3725	72.74

critical constants

t = 30.98 P = 72.93 v = 44.30

* v = volume fraction of the theoretical normal volume . 10^6

v	P	v liq.	v	P	v liq.
80.06 mol %					
9.62°					
9795	64.05	-	4022	91.55	1464
9412	65.36	-	3338	100.07	2221
8792	66.89	124	3164	102.67	-
7948	69.16	308	2874	112.50	-
6847	71.79	470	2742	121.35	-
6404	74.92	672	2699	125.18	-
5500	79.65	909	2632	129.33	-
4811	84.23	1122	2581	135.67	-
11.35°					
10341	63.46	-	4097	92.84	1376
9505	66.25	-	3712	96.79	1707
8763	68.905	-	3446	100.08	2336
8629	69.37	-	3397	100.89	-
7950	70.95	217	3280	102.21	-
7203	73.535	384	3028	110.48	-
6396	77.02	573	2853	119.11	-
5608	81.14	781	2718	128.44	-
4829	86.40	1097	2621	137.56	-
12.51° (critical)					
10259	64.42	-	4772	88.24	1041
9570	66.77	-	3981	95.61	1360
8741	69.74	-	3606	99.65	-
8040	72.27	-	3299	105.38	-
7197	75.16	201	3057	112.34	-
6378	78.56	439	2870	121.71	-
5597	82.66	674			
14.04°					
10318	65.06	-	4761	90.15	786
9504	67.91	-	4402	93.16	888
8726	70.87	-	4066	96.35	933
7926	74.06	-	3947	97.55	-
7272	76.79	-	3700	100.97	-
7095	77.46	43	3287	109.15	-
6337	80.59	265	3002	118.66	-
5694	84.65	457	2823	128.20	-
15.41°					
10276	66.02	-	4667	92.81	361
9515	68.77	-	4538	93.84	273
8763	71.74	-	4460	94.43	164
7991	74.91	-	4419	94.87	-
7159	78.62	-	4045	98.88	-
6435	82.05	-	3692	103.36	-
5971	84.325	139	3253	113.06	-
5604	86.34	228	3008	122.03	-
5229	88.71	377	2821	133.17	-
4999	90.31	367	2732	141.72	-
4844	91.44	387			
16.27°					
10312	66.345	-	4824	92.72	-
9519	69.28	-	4434	96.05	-
8701	72.58	-	4031	100.54	-
7955	75.77	-	3647	106.62	-
7163	79.37	-	3284	114.28	-
6389	83.20	-	3053	122.29	-
5984	85.31	-	2857	133.275	-
5592	87.57	-	2759	140.7	-
5228	89.80	-			
17.66°					
10273	67.26	-	4843	94.59	-
9510	70.17	-	4087	102.08	-
8683	73.60	-	3688	108.02	-
7920	76.98	-	3280	117.36	-
7161	80.585	-	2973	129.44	-
6359	84.77	-	2816	141.18	-
5610	89.15	-			
89.53 mol %					
17.60°					
11384	58.35	-	5157	74.26	1194
10605	60.46	-	4486.5	77.12	1502
9826	62.62	-	4379.5	77.68	1556
9047	64.84	-	3482	83.35	2189
8503	66.24	-	2954	88.30	-
7489.5	67.85	338	2848	91.715	-
6712.5	69.54	571	2719.5	97.38	-
6108	71.12	826	2572	103.13	-
5935	71.65	879	2466	123.34	-
5385	73.39	1105			
20.29°					
11699	58.86	-	4468	80.88	1360
11384	59.72	-	4379	81.39	1445
10605	61.94	-	3640	85.35	2230
9826	64.31	-	3501	86.91	2540
9047	66.62	-	3335	88.28	-
8900	67.15	-	3132	91.50	-
8269	69.04	-	2959	95.64	-
7490	71.41	-	2897	97.76	-
7291	71.98	-	2759	104.46	-
6713	73.07	267	2613	114.89	-
5935	75.32	596.5	2527	125.125	-
5157	77.94	968			
21.99° (critical)					
12159	58.36	-	5157	80.34	638
11384	60.52	-	4379	83.76	1169
9826	65.32	-	3878	86.60	-
8269	70.37	-	3613	88.74	-
6713	75.37	-	3054	97.115	-
6400	76.42	-	2769	109.26	-
5935	77.64	210	2598	123.75	-

v	P	v liq.	v	P	v liq
		89.53 mol %			
		22.68°			
12159	89.53	-	4379	84.735	709
11384	60.90	-	4309	85.05	591
10605	63.25	-	4278	85.22	625
9826	65.78	-	4258	85.35	288
9047	68.285	-	4243	85.40	95
8269	70.92	-	4219	85.54	125
7489.5	73.49	-	4218	85.53	-
6712.5	76.09	-	3991.5	87.03	-
5913	78.74	-	3604	90.23	-
5546	79.97	198.5	3049	99.19	-
5157	81.33	400	2752	112.67	-
4768	82.89	597.5	2612	124.50	-
		23.29°			
12159	58.95	-	5546	80.80	-
11785	60.04	-	5157	82.29	-
11384	61.21	-	4768	83.78	-
10605	63.59	-	4379	85.88	-
9826	66.09	-	3991	87.97	-
9047	68.70	-	3605	91.26	-
8269	71.34	-	3046	101.03	-
7490	74.04	-	2791.5	112.40	-
6712.5	76.71	-	2646	124.08	-
5935	79.48	-			
		25.20°			
12159	59.81	-	5156	84.85	-
11384	62.14	-	4768	86.61	-
10605	64.59	-	4379	88.70	-
9826	67.23	-	3991	91.40	-
9047	69.97	-	3609	94.97	-
8269	72.78	-	3229	101.13	-
7490	75.69	-	2846	114.98	-
6712	78.59	-	2710	124.35	-
5935	81.69	-			
		100 %			
		25.55°			
8573	63.12	-	2869	64.41	-
7812	64.36	-	2798	64.43	-
7046	64.42	420	2645	70.91	-
6227.5	64.41	859	2520	80.655	-
5504	64.41	1276	2438	92.97	-
4837	64.40	1664	2366	105.79	-
4068	69,39	2088	2309	122.555	-
3205	64.42	2597	2270	138.42	-
3085	64.37	2652			
		28.15°			
9338	63.44	-	3974	68.48	2189
8565	65.19	-	3119	68.45	-
7807.5	66.755	-	3011	68.43	-
7030	67.995	-	2813	72.405	-
6950	68.19	-	2670	78.55	-
6673	68.39	-	2546	89.54	-
6300	68.41	290	2446	103.47	-
5502	68.41	947	2369	119.61	-
4712	68.435	1625	2315	136.58	-
		30.98°			
10068	63.36	-	3959	72.96	-
9314	65.39	-	3656	72.995	-
8582	67.22	-	3296	73.53	-
7809	69.085	-	3230	73.89	-
7031	70.73	-	3051	75.43	-
6275	71.95	-	2862	79.43	-
5483	72.745	-	2721	86.10	-
5102	72.87	-	2593	95.70	-
4777	72.93	-	2509	106.18	-
4403	72.94	-	2435	119.35	-
4254	72.98	-	2362	138.65	-

v	P	v	P
	100 %		
	31.89°		
10086	63.87	3942	74.69
9314	65.995	3610	75.00
8570	67.945	3228	76.20
7771	70.03	2883	82.02
7017	71.68	2717	89.90
6267	73.035	2593	99.77
5528	73.94	2503	111.45
5117	74.24	2439	122.79
4742.5	74.44	2377	136.71
4364.5	74.56		
	34.02°		
10067	65.18	3971	78.385
9337	67.295	3243	81.11
8560	69.49	2955	86.16
7791	71.64	2746	95.02
7023.5	73.65	2614	105.95
6255	75.34	2510	119.53
5529.5	76.605	2426	136.66
4672	77.575		
	37.09°		
10863	64.56	5525.5	80.47
10093	66.90	4770	82.11
9339	69.29	4011	83.89
8554	71.73	3230	88.89
7810	74.11	2799	103.08
7059	76.40	2609	119.27
6287	78.585	2495	136.01
	41.95°		
11546	64.85	6181	84.04
10794	67.28	5320	87.18
10047	69.81	4530	90.13
9211	72.78	3778	94.10
8486	75.48	3087	105.01
7640	78.57	2817	117.96
6915	81.31	2642	234.85
	48.10°		
12311	65.20	6899	87.07
11572	67.69	6118	90.90
10787	70.52	5380	94.78
9970	73.61	4570	99.62
9232	76.61	3823	105.50
8442	80.07	3129	119.38
7678	83.38	2864	135.56
	57.75°		
13174	66.27	7668	91.16
12356	69.20	6930	95.79
11586	72.18	6113	101.32
10807	75.42	5372	107.06
10009	78.99	4596	114.45
9271	82.49	3795	126.10
8482	86.62	3421	135.81

Trautz and Emert, 1926

p	excess of pressure (by mixing)
	15°
755	0.445 mm

Booth and Carter, 1930

t	P		t	P	
		50 vol %			
-13.16	122.54	V	-30.32	138.86	V+L
-13.32	122.54	V+L	-33.04	139.54	V+L
-13.96	122.54	V+L	-33.44	140.21	V
-14.62	103.64	V+L	-33.38	140.21	V+L
-19.44	131.52	V+L	-33.50	135.63	V+L
-19.47	132.19	V	-33.60	135.63	V
-25.11	151.29	V	-35.22	140.66	V+L
-28.38	143.00	V	-35.71	140.91	L
-29.04	137.50	V+L	-35.87	140.81	V+L
-29.68	140.21	V	-38.09	141.44	V+L
-29.68	137.50	V+L	-37.63	144.30	L
-30.20	137.50	V+L	-37.58	140.41	L
-30.20	138.86	V			
		40 vol %			
-20.23	107.94	V	-21.67	117.57	V
-20.26	107.94	V+L	-22.49	119.91	V+L
-20.66	108.62	V	-22.26	119.91	V
-20.89	108.62	V+L	-24.97	128.81	V+L
-21.12	108.62	V+L	-24.97	129.11	V
-21.03	108.62	V	-30.99	134.66	V+L
-21.06	108.62	V+L	-30.99	137.28	V
-20.56	89.56	V+L	-30.92	137.28	V
-20.40	89.65	V	-30.95	136.90	V+L
-21.32	117.26	V+L	-31.12	137.05	V
-21.29	117.94	V+L	-37.28	141.05	V+L
-21.22	118.57	V+L	-37.25	141.35	V
-21.25	119.91	V	-37.25	141.20	V
-21.74	89.56	V+L	-37.32	141.20	V+L
-21.67	118.57	V	-39.18	135.64	V+L
-21.84	117.96	V+L	-38.75	135.64	
		20 vol %			
-44.86	103.66	V	-59.90	69.64	V+L
-44.93	103.66	V+L	-60.26	129.69	V
-49.90	110.46	V+L	-60.26	129.32	V+L
-49.84	111.14	V	-60.33	129.47	V
-49.94	110.46	V	-60.98	130.37	V
-49.90	111.14	V+L	-61.27	129.69	V+C
-48.76	100.59	V+L	-62.57	130.37	V+C
-48.23	100.59	V	-62.74	130.37	V+C
-48.73	100.59	V+L	-62.57	140.79	V
-49.87	100.59	V+L	-60.39	130.37	V+L
-49.77	106.66	V	-60.39	130.97	V
-53.57	52.64	V+L	-62.02	130.37	V+L
-53.50	52.64	V+L	-62.09	130.27	V+C
-52.06	116.30	V+L	-62.31	130.27	V+C
-52.16	116.30	V+L	-60.27	69.64	V+C
-57.88	126.66	V+L	-59.90	69.64	V+L
-57.88	127.26	V	-60.07	69.64	V+C
-58.39	34.64	V+C			
		10 vol %			
-64.11	69.64	V	-67.23	103.64	V
-65.08	69.64	V+C	-67.26	103.64	V
-65.24	86.64	V	-67.36	103.64	V+C
-65.31	86.64	V+C	-70.97	137.64	V
-65.17	86.64	V	-71.00	137.64	V+C

vol %	t crit.	P crit.	t maxim.	P maxim.
100	+31.00	72.9	-	-
90	+22.51	86.0	+23.8	81.8
80	+12.50	99.6	+16.3	89.2
50	-35.70	140.7	- 8.41	103.2
40	-60.05	148.0	-19.97	102.8
30	-	-	-31.75	101.0
20	-	-	-48.73	98.1
0	-118.8	49.2	-	-

Edwards and Roseveare, 1942

mol %	Second virial coefficient B_{12} Amagat units . 10^4
	25°
48.17 (?)	-25.2

Kapp, 1907

%	d	%	d	%	d
		0°			
0	0.001429	42.50	0.001650	70.10	0.001800
5.25	.001455	47.00	.001674	77.45	.001840
11.51	.001486	48.30	.001685	78.25	.001845
16.30	.001515	51.95	.001700	81.80	.001870
21.15	.001538	53.40	.001708	85.45	.001885
26.12	.001575	54.61	.001715	92.15	.001922
32.19	.001600	55.70	.001721	94.55	.001935
36.05	.001614	61.00	.001750	100.00	.001965
38.75	.001630	65.50	.001775		

Fuchs, 1918

vol%	Dv (%)	vol%	Dv (%)
	19.5°	716 mm	
0	0	60	2.20
10	0.98	70	1.88
20	1.53	80	1.33
30	2.01	90	0.71
40	2.34	100	0
50	2.41		

Van Itterbeek and De Clippeleir, 1947

t	%	$(\varepsilon-1).10^6$	t	%	$(\varepsilon-1).10^6$
		699 mm			
30.00	100	828	30.14	69.957	708
30.14	94.994	792	30.05	34.621	579
30.07	89.880	774	30.07	18.169	539
30.21	79.987	714	30.91	0	513
		406 mm			
30.00	100	476	30.00	0	156
30.21	73.02	301			

Kapp, 1907

%	U (ratio)	%	U (ratio)	%	U (ratio)
		0°			
0	1.3960	42.50	1.3484	70.10	1.3215
5.25	.3906	47.00	.3436	77.45	.3164
11.51	.3818	48.30	.3389	78.25	.3125
16.30	.3773	51.95	.3412	81.80	.3125
21.15	.3663	53.40	.3367	85.45	.3058
26.12	.3636	54.61	.3332	92.15	.3030
32.19	.3571	55.70	.3327	94.55	.2993
36.05	.3495	61.00	.3294	100.00	.2960
38.75	.3495	65.50	.3269		

Sulfur (S) + Benzene (C_6H_6)

Aronstein and Meihuizen, 1899

%	b.t.	%	b.t.
	747mm		
100	78.9 - 79.0	92.692	79.660
99.400	79.071	91.587	79.740
98.300	79.172	90.436	79.924
97.146	79.280	89.297	79.906
96.045	79.380	88.135	79.983
94.872	79.479	86.500	80.062
93.798	79.568		

Alexeev, 1886

%	sat.t.	%	sat.t.
91.5	102	55.7	160
88.2	120	47.8	151
78.1	156	35.08	128
75.8	159	26.7	102
67.7	162.5	21.5	86

Etard, 1894

%	f.t.	%	f.t.
98.8	8	93.2	65
98.7	10	91.4	72
98.2	21	82.5	100
97.4	30	68.1	123
96.7	39	66.0	237
96.0	47	63.2	150
95.1	54		

Teletov and Pelikh, 1929

%	sat.t.	%	sat.t.
97.290	50	64.820	128.5
95.015	65.5	62.110	134
93.250	73	60.590	137
91.560	78.5	53.290	143
89.850	84	50.850	146.5
87.940	87.5	47.570	152
85.810	91.5	44.130	153.5
83.950	94.5	39.640	155
82.440	97.5	30.650	153
78.850	102	19.010	141
76.670	103	17.710	138
74.500	105	15.380	128
72.370	109	11.120	120
70.670	114.5	9.680	116-119
67.740	120.5	4.450	110.8
66.900	125	3.970	111

Sulfur (S) + Toluene (C_7H_8)

Alexeev, 1886

%	sat.t.	%	sat.t.
93.6	103	68.34	179.5
91.53	125	57.6	171
90.36	127	38.03	137
86.36	150	21.9	50
79.17	172		

Teletov and Pelikh, 1929

%	sat.t.	%	sat.t.
97.90	42	73.69	114.5
96.27	52.5	70.14	124.5
93.87	68	68.30	129.5
92.11	79	66.41	134.5
89.87	86	64.45	139.5
87.95	90.5	21.34	172
84.83	95.5	14.75	137
80.14	103.5	10.90	128
78.73	106.5	8.72	117
77.42	109	6.45	114

Haywood, 1896-97

%	b.t.
100	110
L_1+L_2+C+V	112.05

Sulfur (S) + Heptane (C_7H_{16})

Teletov and Pelikh, 1929

%	f.t.	m.t.	%	f.t.	m.t.
99.71	21	-	94.44	103.5	103
99.50	38	-	93.13	111.5	109
99.24	47.5	-	92.34	120.3	112.5
98.95	54	-	91.56	131	125
97.81	75	75	90.79	148	131.5
96.75	83	81	90.04	151	142
96.13	91	90	89.20	160.5	151.5
95.62	96	95	88.57	163	159

Sulfur (S) + m-Xylene (C_8H_{10})

Aronstein and Meihuizen, 1899

%	b.t.	%	b.t.
	762mm		
100	139.0	94.015	139.939
99.020	139.172	92.608	140.128
98.033	139.337	91.067	140.328
96.991	139.505	88.640	140.613
95.970	139.662	85.890	140.931
94.970	139.803		

Teletov and Pelikh, 1929

%	sat.t.	%	sat.t.
97.73	43	82.27	102.5
96.09	62	78.10	110.5
94.50	70	76.26	113.5
93.46	74	74.18	117
92.04	79.5	72.15	122.5
90.59	84	69.86	130.5
89.36	88	68.22	137
88.35	91	54.94	169
86.97	92.5	51.72	179
84.75	97.5	48.22	183-184

Sulfur (S) + p-Xylene (C_8H_{10})

Hammick and Holt, 1927

%	sat.t. inf.	sat.t. sup.	%	sat.t. inf.	sat.t. sup.
79.62	94.0	-	53.7	175.0	220.0
78.2	101.0	-	51.7	175.0	206.0
74.1	117.7	-	38.3	190.0	-
72.05	124.5	-	28.8	190.0	-
71.96	124.2	-	19.0	184.0	-
69.78	130.0	-	14.4	176.0	-
68.05	137.3	-	14.5	156.0	-
65.4	144.5	-	12.1	162.5	187.0
65.1	149.0	-	10.0	150.0	203.0
60.1	158.5	-	9.0	143.0	205.0
56.0	167.0	235.0			
55.9	167.5	-			
54.3	171.0	-			

%	f.t.	%	f.t.
monocl.		rhomb.	
83.75	98.2	89.00	85.0
83.70	98.0	86.05	92.5
82.15	103.3	82.15	100.5
79.62	106.0		
78.20	107.0		

Sulfur (S) + Xylene (C_8H_{10})

Haywood, 1896 - 1897

%	b.t.
100	138.95
L_1+L_2+C+V	143

Sulfur (S) + Triphenylmethane ($C_{19}H_{16}$)

Smith, Holmes and Hall, 1905

%	sat.t. inf.	%	sat.t. sup.
4.28	103.5	15.39	214.5
5.19	117.0	17.17	211.0
6.56	127.0	20.09	206.0
7.49	131.0	23.61	203.0
8.82	136.5	26.63	200.0
9.60	141.0	29.68	199.0
11.79	144.0	35.42	198.0
14.12	146.0		
16.45	146.5		
18.73	147.0		
22.68	146.0		

Sulfur (S) + Naphthalene ($C_{10}H_8$)

van Bylert, 1891

%	f.t.	%	f.t.
100	78	59.96	84.6
92.3	76.1	49.88	89.5
90.1	75.5	29.88	99.0
80.1	73.3	9.97	109.5
69.43	79	0	119.0

Sulfur (S) + Anthracene ($C_{14}H_{10}$)

Ketelaar and Jibben, 1948 (fig.)

mol %	f.t.	mol %	f.t.
monocl.			
0	119.2	50	188.0
3.5	116.0	60	192.0
10	155.0	70	198.0
20	173.5	80	202.0
30	178.0	90	208.0
40	183.0	100	215.3
rhomb.			
0	113	3.5	116
3	112		

Sulfur (S) + Carbon disulfide (CS_2)

Beckmann, 1890

%	D b.t.	%	D b.t.
98.942	0.095	94.355	0.516
98.507	.143	94.214	.540
98.452	.151	91.707	.770
97.924	.195	90.941	.830
97.186	.276	87.75	1.113
97.175	.275	86.86	.210
96.943	.294	84.74	.378
96.124	.355	82.65	.590
94.707	.515		

Helff, 1893

%	D b.t.	%	D b.t.
98.88	0.104	91.48	0.761
98.84	.107	89.23	0.985
97.35	.243	87.65	1.083
96.88	.287	86.03	.264
95.22	.455	83.44	.438
94.73	.481	81.97	.597
92.85	.655	78.23	.920

Aronstein and Meihuizen, 1899

%	D b.t.	%	D b.t.
95.778	0.364	80.77	1.547
92.743	0.635	77.89	1.747
89.980	0.862	75.45	1.910
87.010	1.095	73.09	2.064
83.970	1.323		

Guglielmo, 1892

%	t	p
97.238	10.80	197.58
97.238	10.23	192.33
92.607	11.46	200.06
91.40	0	123.74
89.94	11.15	195.65
85.256	11.90	199.80
85.256	12.54	205.01
81.0 (sat.sol)	0	120.06
77.18	13.80	211.39

Etard, 1894

%	f.t.	%	f.t.
96.4	-61	66.6	26
95.6	-55	65.4	27
89.4	-19	62.2	29
89.2	-18	60.3	30.5
88.5	-17	57.8	33
87.6	-13	51.3	40
86.6	-11	46.8	44
82.8	-2	43.8	46
80.5	+3	42.5	48
76.9	9	40.0	53
76.3	11	39.4	54
74.1	14	32.1	65
72.8	17	23.6	77.5
71.1	19	20.6	81
71.5	20	12.2	92
70.3	21	9.9	98

Jacek, 1915

%	f.t.	%	f.t.
98.92	-111.5	94.55	-51
98.95	109.5	94.44	47
98.19	99	93.85	44
97.81	86	93.11	41
97.70	82	92.63	36.5
97.64	81.5	91.08	28.5
97.19	74	90.12	25
96.80	70.5	88.95	21
96.45	65	87.75	17
96.37	63	86.85	13.75
96.17	62	86.74	13
95.68	59	81.09	-0
95.47	-57.5		

Beckmann, 1890

%	d (at b.t.)	%	d (at b.t.)
100.000	1.2223	94.707	1.2487
98.942	.2274	94.355	.2506
98.507	.2295	94.214	.2513
98.452	.2297	91.707	.2651
97.924	.2323	90.941	.2694
97.186	.2360	87.75	.2883
97.175	.2361	86.86	.2939
96.943	.2372	84.74	.3075
96.124	.2414	82.65	.3216

Guglielmo, 1892

%	d	%	d
	13°		
100	1.273	85	1.550
95	1.363	80	1.648
90	1.455		

Pfeiffer, 1897

%	d	%	d
	15°		
100	1.2708	88	1.3297
98	.2802	86	.3399
96	.2901	84	.3502
94	.2998	82	.3604
92	.3096	80	.3709
90	.3195		

Rosental, 1930

%	d_t
100	1.29369 - 0.001477 t
93.42	.32703 - .001436 t
87.25	.35422 - .001391 t
79.17	.39722 - .001384 t
76.70	.41005 - .001412 t

Dobinski, 1932

t	d	t	d	t	d
75.41%		82.29%		89.97%	
18.0	1.3925	19.1	1.3535	16.8	1.3171
27.2	.3795	24.9	.3453	27.0	.3021
31.2	.3740	30.5	.3376	30.6	.2972
94.74%		100%			
17.7	1.2933	19.2	1.2656		
28.8	1.2767	27.0	.2530		
		31.0	.2471		

Pekar, 1902

t	σ	t	σ
78.02%		100%	
17.5	35.175	20.0	32.388
60.5	28.942	61.1	26.275
99.9	23.261	100.0	20.560

Worley, 1907

c*	σ
31°	
0	29.600
10	30.505
20	31.182
30	31.593

* g S/100cc

Berghoff, 1894

%	n_D 3.5°	n_D 22.7°	$\tau \cdot 10^7$
100	1.64132	1.62522	8443
95.24	.65153	.63668	7735
90.91	.66175	.64704	7662
86.96	.67170	.65772	7281
83.33	.68105	.66643	7647
80.00	.69073	.67564	7860

Forch, 1902

%	n_2-n_1	%	n_2-n_1
	17.5°		
98.773	0.00287	86.11	0.03396
96.895	.00732	81.26	.04638
94.895	.01196	73.56	.06750
90.882	.02182		

Eggers, 1904

%	ε	%	ε
	19°		
100.0	2.65	88.44	2.15
96.8	2.55	72.74	2.08
94.16	2.37	71.20	2.05

Rosental, 1928

t	ε	t	ε	t	ε
		76.70 %			
35.33	2.9494	22.16	2.9919	11.49	3.0195
35.26	2.9499	15.28	3.0110	7.68	3.0142
30.04	2.9670	14.78	3.0191	7.67	3.0102
29.84	2.9689	12.71	3.0198	6.17	3.0293
22.31	2.9912				
		79.17 %			
31.10	2.9375	15.69	2.9834	9.84	3.0004
19.69	2.9747	12.72	2.9919	7.98	3.0044
19.60	2.9748				
		87.25 %			
35.17	2.8397	17.69	2.8962	9.05	2.9234
35.08	2.8427	12.14	2.9152	8.97	2.9217
25.51	2.8730				
		93.42 %			
30.09	2.8022	14.91	2.8487	5.29	2.8745
22.26	2.8269	9.38	2.8648	5.29	2.8693
22.13	2.8255	8.58	2.8752		
		100 %			
36.05	2.6707	24.05	2.6997	11.35	2.7272
30.14	2.6841	20.00	2.7118	11.05	2.7296
29.97	2.6838	16.27	2.7195	10.96	2.7296
24.20	2.6998	16.22	2.7186		

Dobinski, 1932

t	ε
75.41 %	
18.0	2.850
27.2	2.820
31.2	2.807
82.29 %	
19.1	2.790
24.9	2.770
30.5	2.752
89.97 %	
16.8	2.732
27.0	2.701
30.6	2.690
94.74 %	
17.7	2.697
28.8	2.663
100 %	
19.2	2.654
27.0	2.630
31.0	2.618

Di Ciommo, 1902-03

%	$\varkappa \cdot 10^{12}$	%	$\varkappa \cdot 10^{12}$
100	0.059	93.6	0.2
98.4	.118	92.2	0.2
96.7	.22	83.5	0.24
95.2	.19		

Williams, Johnson and Maass, 1935

%	Q diss. 25°	Q diss. 20°
93.70	-405.3	-398.0
93.70	-405.4	-398.2
92.00	-404.4	-398.0
83.00	-	-395.6
83.00	-	-395.7
88.27	-403.5	-
88.27	-403.4	-
85.81	-403.0	-
85.81	-403.2	-
83.44	-402.7	-
83.44	-402.5	-

Sulfur (S) + Bromoform ($CHBr_3$)

Rheinboldt and Schneider, 1928 (fig.)

%	f.t.	%	f.t.
50	82.5	20	110
40	93	10	115
30	102	0	119

Sulfur (S) + Methylene iodide (CH_2I_2)

Rheinboldt and Schneider, 1928

%	f.t.	%	f.t.
65	29	20	103
60	41.5	10	110
40	74	0	119
30	98.5		

Madan, 1897

sat.sol.: $n_D^{16} = 1.778$

Sulfur (S) + Iodoform (CHI_3)

Rheinboldt and Schneider, 1928

%	f.t.	E	%	f.t.	E
100.0	120	119	35.2	92.5	87
96.0	117	85	33.8	93	92
87.9	109.3	85	24.9	99	91
68.8	93.5	85	20.2	102.5	91
60.0	87	85	10.1	110.5	91
54.3	88.5	85	4.0	115.5	91
49.8	90	85	0.0	119	118
39.7	92	85			

Sulfur (S) + Ethylene bromide ($C_2H_4Br_2$)

Etard, 1894

%	f.t.	%	f.t.
98.3	9	87.6	72
97.6	22	69.8	95
95.6	40	40.0	108
93.6	50		

Sulfur (S) + Ethylene iodide ($C_2H_4I_2$)

Rheinboldt and Schneider, 1928 (fig.)

%	f.t.	E	%	f.t.	E
100	82.5	82	40	90	65
90	76	65	30	97.5	65
80	70	65	20	105	65
70	67	65	10	112	65
60	75	65	0	119	118
50	82	65			

Sulfur (S) + Ethylidene iodide ($C_2H_4I_2$)

Rheinboldt and Schneider, 1928 (fig.)

%	f.t.	E	%	f.t.	E
100	73	73	40	86.0	54
90	68.5	54	30	94.0	54
80	63	54	20	102.5	54
70	56.5	54	10	110	60
60	68	54	0	119	118
50	77.5	54			

Sulfur (S) + Tetrachlorethane ($C_2H_2Cl_4$)

Gemmellaro, 1940

%	f.t.	%	f.t.
98.95	15	91.85	90
98.40	40	82	100
97.85	60	61	110
97.30	70	0	120
96.55	80		

Sulfur (S) + Tetrabromethylene (C_2Br_4)

Rheinboldt and Schneider, 1928 (fig.)

%	f.t.	E	%	f.t.	E
100	56	56	40	105	44
90	50	44	30	111	44
80	60	44	20	114	44
70	79	44	10	117	71
60	90	44	0	119	118
50	98	44			

Sulfur (S) + Tetraiodethylene (C_2I_4)

Rheinboldt and Schneider, 1928

%	f.t.	E	%	f.t.	E
100.0	189	188	36.4	102.5	96
90.4	-	97.5	34.1	103	98
79.4	-	95.5	29.8	106	101
69.4	137.5	95.5	20.3	112.5	101
49.7	104	95.5	10.6	116.5	101
43.9	99	95.5	0.0	119	118
40.6	102	95.5			

Sulfur (S) + Diiodacetylene (C_2I_2)

Rheinboldt and Schneider, 1928 (fig.)

%	f.t.	E	%	f.t.	E
100	78.5	78.5	40	88	48
90	72	48	30	97.5	48
80	61.5	48	20	107	59
70	50.5	48	10	102.5	88
60	65.5	48	0	119	118
50	78.5	48			

Sulfur (S) + Chlorbenzene (C_6H_5Cl)

Alexeev, 1886

%	sat.t.	%	sat.t.
87.85	85	44.67	110.5
75.08	106.5	39.93	103.5
67.03	116	31.73	93
56.95	116	18.84	67

Timmermans and Kohnstamm, 1909-10

C.S.T.	limits of pressure	dt/dp
117.0	5 - 85 Kg/cm^2	-0.025

Sulfur (S) + p-Dichlorbenzene ($C_6H_4Cl_2$)

Bruni and Pelezzola, 1921

%	f.t.	E	%	f.t.	E
0	113	-	60	97.1	50.7
5	107.2	-	70	94.6	51
10	101.4	49.8	80	86.6	51.2
20	99.05	49.8	85	79.6	51.2
25	98.4	50.8	90	67.8	51.5
30	97.4	50.4	95	51.5	51.5
40	96.5	50.7	97	52.2	51.8
50	96.9	50.7	99	52.6	51
55	96.8	50.7	100	52.9	-

Teletov and Pelikh, 1929

%	sat.t.	%	sat.t.
89.39	67	25.03	102
75.00	86	20.14	99.5
54.02	104	16.34	88.5

Sulfur (S) + p-Diiodobenzene ($C_6H_4I_2$)

Rheinboldt and Schneider, 1928 (fig.)

%	f.t.	E	%	f.t.	E
100	129	129	40	92	91
90	126	91	30	99.5	91
80	119	91	20	107	91
70	112	91	10	112.5	91
60	106.5	91	0	119	118
50	99	91			

Sulfur (S) + Hexaiodobenzene (C_6I_6)

Schneider, 1928

%	f.t.	E	%	f.t.	E
90.0	122	-	10.0	134	114
80.0	-	114	4.0	117	114
50.0	-	114	0.0	119	-
20.0	177	114			

Sulfur (S) + bis-β-Chlorethyl sulfide($C_4H_8Cl_2S$)

Wilkinson, Neilson and Wylde, 1920

%	f.t.	%	f.t.	
100	13.82	80.00	102.5	
99.9	13.79	79.0	103.0	
99.7	13.75	74.82	110.0	L_1+L_2
99.3	13.70	69.00	120.0	"
99.1	13.66	68.00	124.0	"
98.52	24.0	65.0	127.0	"
97.56	43.0	60.0	133.5	"
96.62	54.0	40.0	143.0	"
95.69	65.0	22.0	135.0	"
93.90	74.0	15.0	124.0	"
92.40	79.0	13.0	117.0	"
90.91	85.0	10.0	105.0	"
88.70	90.0	6.0	108.0	
83.34	99.0	0.0	114.0	
82.50	100.0			

Sulfur (S) + Aniline (C_6H_7N)

Alexeew, 1886

%	sat.t.	%	sat.t.
92.89	104	49.58	133
90.3	114	47.49	131
89.42	116.5	37.58	123
79.7	135	29.46	111
78.72	138	23.00	98
68.25	137	14.10	72

Sulfur (S) + Methylaniline (C_7H_9N)

Zhuravlev, 1940

%	sat.t.	%	sat.t.
9.7	84.0	44.3	104.8
14.9	96.7	55.0	98.5
23.7	105.7	63.9	88.3
33.5	106.8	70.2	77.2

Sulfur (S) + Dimethylaniline ($C_8H_{11}N$)

Zhuravlev, 1940

%	sat.t.	%	sat.t.
16.0	80.0	45.8	86.2
25.0	88.2	59.0	74.5
35.5	88.9		

Sulfur (S) + o-Toluidine (C_7H_9N)

Zhuravlev,1940

%	sat.t.	%	sat.t.
8.5	80.0	47.5	119.7
10.3	100.0	58.5	111.8
18.8	117.8	66.9	100.6
27.7	122.2	74.0	86.4
36.6	122.4		

Sulfur (S) + Diphenylamine ($C_{12}H_{11}N$)

Hrynakowski and Adamanis, 1934

mol%	f.t.	E	min.
70.3	51.0	51.0	3.3
63.1	65.0	50.5	3.0
51.8	77.5	49.0	3.0
43.1	87.0	48.0	2.5
36.3	93.0	51.0	2.5
30.7	96.5	47.0	2.3
26.0	99.0	45.0	2.3
22.1	100.5	48.0	2.3
18.8	101.5	50.5	2.0
15.9	102.5	48.0	1.7
13.4	103.5	51.0	1.7
11.2	104.5	51.0	1.5
9.3	105.5	51.0	1.3
7.5	105.5	-	-
5.9	105.5	51.0	0.5
4.5	105.5	-	-
3.2	105.5	-	-
2.1	106.5	-	-
1.0	111.0	-	-
0.0	117.0	-	-

Sulfur (S) + α -Naphthylamine ($C_{10}H_9N$)

Hrynakowski and Adamanis, 1934

mol%	f.t.	E	min.
100	50	-	-
84.8	46.0	-	-
81.0	48.0	45.0	3.3
66.9	64.0	44.0	3.0
56.0	74.0	43.0	3.0
47.3	81.0	45.0	2.7
40.2	88.5	46.0	2.5
34.4	92.5	47.0	2.3
29.4	94.5	45.5	2.0
25.2	98.0	44.0	1.3
21.5	99.5	45.0	0.5
18.3	101.0	43.5	1.5
15.5	102.5	44.5	0.5
13.0	103.5	46.0	0.5
10.8	104.5	46.0	0.8
8.8	106.5	46.5	0.5
7.0	108.5	46.0	0.3
5.3	110.0	47.0	0.3
3.8	112.0	-	-
2.4	114.0	-	-
1.2	116.0	-	-
0.0	119.0	-	-

Sulfur (S) + β -Naphthylamine ($C_{10}H_9N$)

Krupatkin, 1953

%	f.t.	sat.t.	%	f.t.	sat.t.
0.00	112.0	-	49.86	101.5	-
13.00	107.0	-	60.00	102.5	99.0
20.56	104.5	-	65.00	-	99.5
30.00	102.0	-	70.50	103.0	100.0
35.00	100.0 E	-	75.05	-	100.5
40.35	101.0	-	80.30	103.0	100.0
48.50	-	96.5	100.00	117.0	-

C.S.T. 75.05% 100.5°

Sulfur (S) + Pyridine (C_5H_5N)

Bingham, 1907

C.S.T. 150

Hammick and Holt, 1926

%	f.t.	
89.95	84.5	rhomb.
86.65	91.5	
84.1	95.2	
83.1	97.5	
80.8	101.0	monocl.
2.0	110.0	

%	sat.t.	%	sat.t.
86.65	80	41.0	160.5
80.80	98	30.0	161
75.35	116	20.3	156
70.2	127.5	12.22	147
61.4	144	11.6	132.5
61.1	144	10.0	137
49.3	157	8.06	127

Sulfur (S) + Quinoline (C_9H_7N)

Hammick and Holt, 1926

%	f.t.	%	f.t.
	monocl.		
100	-18.97	67.2	96.5
86.2	+74.5	67.05	96.0
80.2	85.8	58.1	98.5
74.1	93.2	50.5	99.5
72.65	93.8	50.3	99.5
71.3	94.2	34.7	100.0
69.6	94.6	14.8	101.0

%	f.t.	%	f.t.
	rhomb.		
76.0	88.75	50.5	101.1
74.1	91.0	43.0	101.4
67.2	96.0	33.25	101.8
64.2	97.1	26.2	102.0
61.0	98.5	21.0	102.3
58.1	99.2	20.2	102.5
54.6	100.9	9.6	104.7
53.2	100.6	2.2	111.5

%	sat.t.	%	sat.t.
	immediately		
72.65	60.0	43.0	94.8
67.2	72.6	39.1	95.2
64.2	78.0	34.7	96.0
61.0	82.5	33.7	95.5-96.2
58.5	85.0	33.25	96.5
58.1	85.5	26.2	94.8
54:6	89.2	21.0	93.8
53.2	90.2	20.2	92.6
50.5	91.6	19.5	91.9
50.3	91.6	14.8	85.4
44.6	94.3	9.6	70.0
44.5	94.5		
	after heating for several hours at 90°		
50.5	91.8	20.2	94.6
50.3	91.8	19.5	94.3
33.25	97.5	14.8	87.7
26.2	97.6	9.6	72.0

Sulfur (S) + Allyl isothiocyanate (C_4H_5NS)

Alexeev, 1886

%	sat.t.	%	sat.t.
89.31	90.5	56.72	124
85.86	103.5	45.10	117
73.75	122.0	27.18	81.5

Zhuravlev, 1940

%	sat.t.	%	sat.t.
9.4	80.0	47.5	123.2
13.2	100.0	46.5	115.3
20.2	116.8	66.6	97.4
26.9	123.9	73.4	80.0
36.5	125.5		

Sulfur (S) + Diphenyliodinium-triiodide ($C_{12}H_{10}I_4$)

Rheinboldt and Schneider, 1928 (fig.)

%	f.t.	E	%	f.t.	E
0	138	138	60	125	117
10	136	117	70	123	117
20	133	117	80	121	117
30	131	117	90	119	117
40	129	117	100	119	118
50	127	117			

Sulfur (S) + Benzoyl chloride (C_7H_5OCl)

Boguski, 1905

%	sat.t.	%	sat.t.
99.01	0	59.96	121.4
98.22	17	50.29	130
97.43	35	43.80	134.2
96.36	46.1	27.77	134.2
93.85	63.3	19.93	130
90.12	78	14.98	121.4
80.11	99.1	12.01	114.6
62.71	118.8	9.39	109.6

Sulfur (S) + β -Naphthol ($C_{10}H_8O$)

Smith, Holmes and Hall, 1905

%	sat.t.	%	sat.t.
I		II	
74.63	118.0	67.20	134.5
68.20	132.5	50.66	157.0
62.77	143.5	45.59	160.5
58.72	149.5	40.80	162.5
54.32	154.0	35.93	164.5
		32.29	163.0
		29.58	163.8
		27.42	163.8
		25.00	163.0

Sulfur (S) + Benzoic acid ($C_7H_6O_2$)

Hammick and Holt, 1927

%	sat.t. 1*	sat.t. 2*	sat.t. 3*
1.89	145	-	-
2.00	151	183	219
2.03	154.5	173	225
2.20	156	170	235
2.30	159.5	167.3	-
2.40	161.5	165	242
2.49	-	-	257.5

%	sat.t. 3*	%	sat.t. 3*
74.5	220	81.8	168.5
75.7	215	83.1	160.5
79.6	182	84.9	149.5
80.75	175	89.65	117

sat.t. 1* : The liquid becomes homogeneous .
2* : " " separates in two layers .
3* : " " becomes again homogeneous .

Nitrogen (N_2) + Methane (CH_4)

Fedorova, 1939

%	f.t.	m.t.	%	f.t.	m.t.
100	-183.2	-	47	-200.2	-210.1
89	-185.0	-192.2	45	-201.8	"
85	-186.2	-193.2	40	-204.6	"
70	-186.6	-202.4	30	-210.1	"
65	-188.2	-205.2	20	-210.1	"
55	-194.8	-210.1	0	-210.1	"
50	-199.8	-210.1			

Keyes and Burks, 1928

vol. (cc/g)	P 0°	50°	100°	150°	200°
			30.44%		
30	31.640	33.172	44.664	51.126	57.591
25	37.756	45.711	53.634	61.513	69.381
20	46.812	56.998	67.146	77.220	87.281
15	61.681	75.810	89.886	103.823	117.737
12	76.349	94.723	113.010	131.113	149.225
10	90.952	113.864	136.643	159.246	181.658
8	112.929	143.254	173.483	203.305	233.066
6	150.927	195.529	239.853	283.615	327.443
			68.99%		
29.946	37.700	45.994	54.227	62.424	70.592
24.946	44.662	54.814	65.036	74.920	84.913
19.946	54.823	67.948	80.913	93.821	106.684
14.946	71.113	89.484	107.710	125.792	143.701
11.946	86.974	110.899	134.726	158.570	182.031
9.946	102.359	132.464	162.645	192.505	222.069
			70.31%		
40	28.868	34.972	41.038	47.075	53.084
35	32.750	39.811	46.821	53.803	60.738
30	37.843	46.220	54.514	62.773	70.938
25	44.819	55.089	65.260	75.360	85.414
20	55.002	68.262	81.353	94.371	107.308
15	71.298	89.910	108.283	126.483	144.608
12	87.008	111.450	135.606	159.515	183.313
10	102.360	133.203	163.655	193.779	223.800

Nitrogen (N_2) + Ethane (C_2H_6)

Reamer, Selleck and al., 1952

P	molal volume (cc/mole) 4.5°	71°	138°	204°
	72.67 mol %			
13.6	1538	1998	2435	2853
27.2	-	958	1194	1413
40.8	-	610	781	934
54.4	-	437	574	696
68.1	-	333	451	552
85.1	-	252	353	438
102	-	200	292	363
119	-	166.4	245	310
136	79.4	143.6	212	270
170	73.8	116.5	169.3	182.7
204	70.4	101.9	143.4	142.4
272	66.0	86.7	114.0	120.3
340	63.2	78.6	98.7	106.4
408	61.0	73.8	89.2	90.3
544	58.1	67.7	78.3	81.1
680	55.9	63.7	77.7	-
	47.56 mol %			
13.6	1595	2035	2460	2878
27.2	758	999	1220	1436
40.8	479	652	808	956
54.4	340	479	602	715
68.1	256	377	479	571
85.1	192	296	356	458
102	153.1	243	319	382
119	127.9	207	271	329
136	112.3	179.7	237	287
170	94.2	144.3	191	198
204	83.8	122.8	161.4	153.1
272	72.8	98.8	126.6	127.7
340	66.6	86.0	107.0	111.7
408	62.8	78.1	95.2	92.6
544	58.0	68.9	80.5	81.3
680	54.8	63.3	77.9	-
	26.82 mol %			
13.6	1629	2057	2472	2884
27.2	754	1020	1234	1446
40.8	516	669	821	966
54.4	375	502	616	725
68.1	297	399	493	581
85.1	232	318	368	468
102	191	265	332	392
119	162	225	284	338
136	141.4	199	250	297
170	114.7	160.9	202	205
204	99.1	136.5	171.6	159.0
272	81.1	107.8	134.0	132.5
340	71.6	92.1	112.5	115.1
408	65.7	82.2	98.9	94.2
544	58.7	70.3	82.3	82.0
680	54.3	63.5	78.5	-

N.B. The authors give also data for 38°, 104°, 171°, 238° .

Eakin, Ellington and Gami, 1955

t	P Dew point	P Bubble point	t	P Dew point	P Bubble point
		95.02%			
-121.7	-	10.83	+11.1	-	46.29
-103.9	-	13.44	+14.83	36.43	-
-84.4	-	16.26	+18.9	-	50.64
-62.2	-	19.92	+21.1	42.94	-
-45.6	-	23.53	+23.3	-	53.73
-44.33	7.12	-	+25.6	47.48	-
-28.9	11.53	28.35	+27.8	-	54.56
-17.8	15.86	-	+27.81	50.40	-
-12.2	-	34.36	+28.30	53.65	-
- 6.7	21.39	-	+28.61	54.17	-
0	-	46.29	+28.97	no separation	
+ 5.56	29.17	-			
		84.99%			
-171.34	-	7.20	-23.3	15.79	-
-156.1	-	13.79	-18.0	-	63.47
-140.3	-	20.80	-12.2	21.67	-
-120.0	-	31.79	- 5.22	-	67.38
-103.9	-	38.23	- 3.9	27.19	-
-90.0	-	43.20	+ 2.8	32.53	-
-90.0	-	43.41	+ 4.38	-	69.90
-73.3	-	48.10	+10.0	40.62	70.08
-73.3	-	48.20	+12.2	-	70.30
-56.7	5.26	52.80	+14.84	45.40	70.03
-45.6	7.70	-	+18.9	51.74	-
-44.1	-	56.38	+21.1	56.92^r	-
-43.2	-	56.43	+21.1	63.70^r	-
-42.8	-	56.75	+21.73	60.43^r	-
-34.4	11.17	-	+21.73	61.13^r	-
		79.98%			
-175.7	-	5.99*	-134.5	-	31.80
-171.4	-	8.07*	-111.4	-	45.76
-162.3	-	12.98	- 93.2	-	53.83
-151.1	-	19.89	- 80.2	-	58.28
		75.07%			
-162.3	-	14.29*	-117.0	-	52.92
-156.1	-	19.42	-102.1	-	61.82
-140.3	-	33.50			
		75%			
-116.7	-	52.42	-20.6	-	86.91
-101.4	-	61.88	- 6.76	-	87.77
-89.7	-	67.80	+ 1.25	-	86.10
-77.2	-	78.01	+ 9.50	79.36^r	-
-52.4	-	80.40	+11.15	78.38^r	-
-35.1	-	84.50	+12.42	75.47	-
		68.31%			
-150.1	-	26.49*	-28.9	17.30	-
-140.3	-	40.44	-17.8	24.58	-
-132.8	-	41.69	- 3.9	38.25	-
-120.0	-	61.88	+ 8.9	63.53^r	-
-103.9	-	74.88	+ 8.9	76.80^r	-
-101.1	-	76.57	+ 9.4	67.22^r	-
- 62.2	5.41	-	+ 9.4	68.61^r	-
- 51.1	8.11	-			
		50.18%			
-63.3	6.65	-	-17.8	40.96	-
-56.7	9.98	-	-10.0	58.19	-
-45.6	15.54	-	- 9.1	63.33	-
-34.4	23.32	-	- 8.2	71.38	-
-26.1	30.10	-			

r = retrograd dew point .

* = two liquid phases .

t	P Dew point	P Bubble point	t	P Dew point	P Bubble point
		30.00%			
-80.4	5.72	-	-42.8	32.30	-
-73.2	7.98	-	-30.6	78.13	-
-56.7	17.02	-			
		15.03%			
-147.6	120.82[r]	-	-95.7	116.75[r]	-
-142.0	102.55[r]	-	-84.4	118.12[r]	-
-140.1	99.98[r]	-	-73.4	113.47[r]	-
-135.3	95.18[r]	-	-67.9	106.25[r]	-
-132.3	94.97[r]	-	-67.8	39.22	-
-127.0	96.27[r]	-	-64.7	100.65[r]	-
-121.1	100.22[r]	-	-60.0	43.28	-
-114.0	105.75[r]	-	-57.9	55.68	-
-105.5	112.02[r]				
		4.10 %			
-148.8	-	31.78	-106.9	82.39[r]	-
-148.2	32.95[r]	-	- 93.1	24.19	-
-140.6	43.23	-	- 92.7	70.78[r]	-
-140.2	44.10[r]	-	- 88.7	53.05[r]	-
-129.1	64.27[r]	-	- 88.5	42.85	-
-118.3	73.10[r]	-			
		1.98%			
-162.7	-	11.59	-128.2	6.87	-
-156.1	-	20.84	-127.6	54.96	-
-151.1	-	26.66	-123.6	56.66	-
-146.7	-	32.60	-122.2	11.36	-
-141.8	-	38.93	-120.0	56.43	-
-141.5	39.39	-	-116.8	17.69	-
-140.3	40.88	-	-113.3	50.53	-
-134.5	48.97	-			

r = retrograd dew point

P	d(moles/l)	compressibility factor
	95.03%	
	43.33°	
294.148	14.0856	0.804079
157.254	12.32410	.491308
90.8274	9.98705	.3501769
72.2033	7.64854	.3634849
62.5136	5.3160	.4527907
53.1505	3.56420	.574186
35.6696	1.81889	.755091
	32.22°	
242.025	14.1010	0.684916
121.033	12.3408	.391370
69.339	9.99998	.2766980
58.9208	7.68396	.3059927
53.9739	5.3342	.4037774
48.1492	3.57348	.537681
33.48530	1.821600	.733548
	21.11°	
190.208	14.1165	0.557987
85.506	12.3601	.2864818
31.2806	1.824045	.710169
	10.01°	
138.386	14.1261	0.421286
51.3677	12.41310	0.1780867
	-6.62°	
61.9080	14.1784	0.1996296
	84.99%	
	43.33°	
184.165	12.0927	0.59810
129.783	10.3139	.48451
101.633	8.5422	.45811
84.405	7.2074	.47229
74.244	5.3265	.53670
58.369	3.4718	.64735
33.982	1.6141	.81064
	32.22°	
262.071	13.8577	0.75467
154.994	12.0989	.51121
106.988	10.3262	.41345
85.710	8.5540	.39984
76.177	7.2211	.42097
65.949	5.3521	.49172
53.492	3.4824	.61413
32.144	1.6159	.79382
	21.11°	
216.392	13.8691	0.64612
122.972	12.1125	.42043
85.136	10.3420	.34362
70.570	8.5704	.34099
48.720	3.4896	.57818
30.287	1.6178	.77528
	10.01°	
170.359	13.8822	0.52812
91.541	12.1308	.32475
28.409	1.6199	.75473
	1.67°	
136.982	13.8934	0.43718
	-12.22°	
79.994	13.9235	0.26831
	70.27%	
	43.33°	
237.520	12.2023	0.74949
175.401	10.4529	.64611
136.996	8.7047	.60599
111.037	6.9845	.61212
89.426	5.2794	.65221
66.732	3.5521	.72337
39.494	1.8252	.83315
	32.22°	
302.490	13.9385	0.86601
207.539	12.2136	.67808
153.681	10.4644	.58605
121.502	8.7173	.55620
99.687	6.9935	.56881
81.662	5.2888	.61615
62.058	3.5581	.69600
37.459	1.8273	.81804
	21.11°	
262.480	13.9505	0.77932
178.096	12.2261	.60336
132.526	10.4764	.52396
106.117	8.7288	.50355
88.500	7.0070	.52314
73.877	5.2988	.57749
48.720	3.4896	.57818
35.431	1.8294	.80220

	10.01°	
221.992	13.9629	0.68420
148.891	12.2403	.52348
111.670	10.4928	.45800
91.072	8.7446	.44820
77.232	7.0214	.47336
65.753	5.3082	.53308
52.021	3.5694	.62720
33.356	1.8314	.78381
	0°	
185.826	13.9762	0.59316
123.353	12.2562	0.44900
	-20.56°	
113.575	14.0148	0.39096
	50.26 %	
	32.22°	
288.452	12.6655	0.90882
221.421	10.9429	.80745
173.292	9.1780	.75346
136.969	7.4084	.73778
106.920	5.6627	.75347
77.776	3.8892	.79802
47.020	2.1530	.87150
	21.11°	
260.404	12.6774	0.85063
200.204	10.9547	.75682
157.465	9.1884	.70969
125.497	7.4174	.70065
98.945	5.6697	.72270
72.918	3.8937	.77552
44.597	2.1553	.85688
	10.01°	
231.777	12.6908	0.78596
178.498	10.9674	.70041
141.528	9.1995	.66206
113.831	7.4268	.65989
90.875	5.6767	.68892
67.984	3.8982	.75052
42.188	2.1574	.84155
	-6.62°	
189.535	12.7127	0.68164
146.849	10.9875	.61105
118.039	9.2171	.58551
96.496	7.4412	.59289
78.647	5.6874	.63223
60.424	3.9048	.70748
38.541	2.1607	.81552
	-12.22°	
110.316	9.2232	0.55858
91.814	$L_1 + L_2$	
	-17.81°	
126.279	11.0020	0.54776
104.423	$L_1 + L_2$	
36.037	2.1629	0.79514
	-23.33°	
148.081	12.7373	0.56708
116.800	$L_1 + L_2$	
50.789	"	
	-34.44°	
142.081	$L_1 + L_2$	
45.414	"	
	-45.56°	
114.725	$L_1 + L_2$	

	29.96%	
	32.22°	
288.452	12.6655	0.90882
221.421	10.9429	.80745
173.292	9.1780	.75346
136.969	7.4084	.73778
106.920	5.6627	.75347
77.776	3.8892	.79802
47.020	2.1530	.87150
	21.11°	
262.888	11.3503	0.95915
208.465	9.6072	.89858
164.848	7.8611	.86841
127.286	6.1216	.86107
92.712	4.3853	.87551
57.941	2.6340	.91095
33.363	1.4628	.94451
	10.01°	
241.307	11.3611	0.91595
192.508	9.6175	.86141
153.062	7.8696	.83702
118.971	6.1281	.83548
87.323	4.3900	.85602
55.042	2.6365	.89844
31.879	1.4641	.93704
	-6.62°	
210.397	11.3803	0.84526
162.692	9.6335	.80060
135.363	7.8822	.78516
106.478	6.1381	.79311
79.219	4.3969	.82374
50.694	2.6404	.87779
29.661	1.4661	.92497
	-23.33°	
178.743	11.3996	0.76483
144.652	9.6496	.73121
117.467	7.8957	.72569
93.699	6.1483	.74337
70.951	4.4038	.85344
27.409	1.4685	.91042
	-28.89°	
111.500	7.9004	0.70391
89.398	6.1535	.72477
	-34.44°	
157.866	11.4127	0.70612
128.695	9.6605	.68005
105.491	7.9048	.68125
85.608	6.1585	.70961
25.905	1.4695	.89989
	-45.56°	
137.350	11.4258	0.64363
115.174	$L_1 + L_2$	
97.299	"	
24.394	1.4708	0.88802
	-56.67°	
122.455	$L_1 + L_2$	
106.526	"	
89.582	"	
21.856	1.4725	0.83551
	-62.22°	
117.447	$L_1 + L_2$	
	-76.11°	
104.695	$L_1 + L_2$	

Nitrogen (N_2) + Propane (C_3H_8)

Watson, Stevens and al., 1954

P Kg	PV/RT	P Kg	PV/RT
	126.15°		
	0.1 %		
254.6	1.138	29.8	1.011
160.2	.078	19.5	.009
104.5	.046	12.9	.005
67.8	.029	8.57	.003
44.6	.019	6.18	.001
	44.4 %		
282.2	1.024	34.4	0.961
166.7	0.910	29.1	.974
110.6	.908	15.5	.981
75.2	.929	10.4	.990
50.9	.944	6.95	.996
	51.6 %		
237.2	0.940	31.6	0.964
145.5	.868	21.35	.978
97.8	.877	14.25	.985
68.0	.909	9.50	.988
46.5	.943		
	78.9 %		
264.4	0.943	33.2	0.906
126.0	.670	23.07	.947
88.0	.704	15.57	.964
64.9	.782	10.48	.976
46.8	.847		
	148.90°		
	31.9 %		
429.5	1.168	32.0	0.979
246.2	1.002	21.52	.986
156.2	0.959	14.41	.991
104.4	.953	9.64	.995
70.2	.960	6.48	.997
47.2	.970		
	71.3 %		
422.7	1.116	44.7	0.886
192.3	0.761	31.0	.921
124.5	.736	21.33	.947
88.1	.781	14.44	.964
63.1	.837	9.66	.976
	83.4 %		
424.6	1.090	42.9	0.829
165.8	0.637	30.3	.880
108.6	.624	21.22	.916
79.8	.688	14.54	.944
59.0	.762	9.78	.960

Nitrogen (N_2) + Butane (C_4H_{10})

Akers, Attwell and Robinson, 1954

P Kg	mol %	
	L	V
	38°	
36.4	96.06	13.89
71.4	91.01	10.25
141.7	80.45	10.92
182.4	73.12	11.21
226.2	61.61	13.28
282.6	45.51	20.04
296.6	-	27.61
	93.5°	
36.4	95.02	33.36
71.8	87.18	20.25
106.5	78.29	15.67
176.7	61.32	20.88
204.9	-	24.91
212.0	45.70	27.65
	126.5°	
36.4	98.94	49.16
71.8	84.62	32.61
106.5	72.58	28.27
141.7	53.22	32.66
	149°	
43.4	-	62.38
50.5	-	52.71
57.5	-	50.27
57.5	-	51.00
64.6	83.50	47.53
71.8	-	45.14
71.8	78.33	45.58
78.8	72.24	45.15
85.7	62.47	45.71
85.7	-	46.39

Nitrogen (N_2) + Heptane (C_7H_{16})

Boomer, Johnson and Piercey, 1938

t	mol%		d	
	L	V	L	V
25	88.0	1.04	0.673	0.0993
55	87.2	1.76	.653	.109
85	86.04	2.44	.625	.101
115	85.02	5.05	.593	.098

Akers, Kehn and Kilgore, 1954

P Kg	mol% L	mol% V	d L	d V
		32°		
72.4	92.0	0.724	0.668	0.078
107.2	87.2	1.00	0.667	-
124.7	85.5	0.39	0.657	0.137
124.7	84.9	0.25	0.670	0.137
142.1	84.8	1.20	0.671	0.152
161.8	83.0	0.50	0.666	0.174
187.8	79.9	0.60	0.663	0.201
212.4	78.5	0.50	0.650	0.227
234.0	75.6	1.00	0.656	0.249
247.8	76.4	0.70	0.663	0.251
282.4	73.4	0.79	0.663	0.282
353.3	68.2	1.07	0.671	0.333
423.9	63.7	2.18	0.666	0.375
564.2	56.3	2.18	0.692	0.445
704.8	49.5	3.00	0.692	0.505
		79.5°		
71.7	90.4	1.78	0.635	0.0716
148.4	81.3	1.18	0.643	0.142
212.4	75.3	1.31	0.639	0.190
283.1	70.9	1.54	0.631	0.271
423.9	56.7	2.43	0.636	0.354
564.2	45.2	4.08	0.641	0.431
704.8	29.5	5.88	0.605	0.449
		126.5°		
74.5	88.4	3.48	0.597	0.0689
142.1	78.7	3.55	0.591	0.130
212.4	69.9	2.28	0.583	0.164
283.1	61.3	2.96	0.586	0.238
459.4	36.6	5.37	0.542	0.361
529.0	27.9	17.2	0.526	0.401
529.0	28.9	17.2	0.548	-
562.8	27.7	16.6	0.549	0.451
633.1	24.7	-	0.522	-
		182°		
79.5	87.2	6.47	0.546	0.0666
177.2	67.0	5.14	0.507	0.144
247.8	55.8	4.96	0.495	0.201
247.8	57.2	4.59	-	0.191
283.1	44.6	6.31	0.464	0.231
316.0	-	8.20	-	0.321
444.5	24.8	-	0.417	-

Nitrogen (N_2) + Ethylene (C_2H_4)

Hagenbach and Comings, 1953

P	PV/RT	P	PV/RT
	50.07°		
	0 %		
11.808	1.0001	84.191	1.0104
12.633	.0001	86.483	.0111
13.718	.0001	94.502	.0137
19.923	.0003	95.0110	.0138
22.408	.0005	103.893	.0171
23.085	.0005	112.459	.0210
24.425	.0006	118.376	.0247
25.284	.0006	130.696	.0291
26.104	.0007	155.173	.0419
45.543	.0024	197.07	.0685
49.910	.0030	226.04	.0897
52.560	.0034	250.89	.1097
56.154	.0040	253.16	.1129
57.617	.0042	303.49	.1571
61.728	.0050	378.42	.2303
67.698	.0062	531.12	.3943
76.693	.0083	659.39	.5391
	20.4 %		
1.245	0.9993	63.456	0.9763
3.948	.9978	69.106	.9754
10.249	.9945	87.537	.9740
10.799	.9942	100.97	.9744
12.441	.9934	103.61	.9746
14.575	.9924	118.67	.9765
17.365	.9910	148.12	.9841
18.022	.9907	167.87	.9917
20.249	.9897	184.64	1.0007
22.053	.9889	213.62	.0202
33.962	.9882	254.20	.0529
39.089	.9824	314.48	.1108
44.749	.9806	439.40	.2532
45.744	.9803	546.96	.3868
56.498	.9776	655.74	.5255
	40.3 %		
1.213	0.9985	55.115	0.9410
3.990	.9951	61.631	.9356
5.346	.9934	66.885	.9315
9.736	.9882	79.312	.9230
10.463	.9873	90.811	.9165
12.041	.9854	93.294	.9153
14.086	.9830	105.77	.9103
17.379	.9792	130.19	.9047
17.389	.9792	146.44	.9060
19.498	.9768	160.11	.9075
21.202	.9749	184.16	.9174
22.408	.9736	217.13	.9381
33.626	.9615	267.10	.9840
38.568	.9564	374.15	1.1130
41.600	.9534	470.70	.2449
44.936	.9502	572.64	.3894

P	PV/RT	P	PV/RT
	59.9 %		
4.104	0.9912	59.836	0.8797
5.223	.9888	64.611	.8715
10.176	.9782	77.911	.8503
10.275	.9780	88.305	.8358
11.694	.9750	90.216	.8334
13.656	.9708	101.53	.8195
16.797	.9642	122.92	.8010
17.646	.9624	138.23	.7952
18.809	.9600	149.23	.7933
20.430	.9566	169.88	.7968
23.241	.9507	200.48	.8156
33.569	.9296	249.71	.8663
38.311	.9202	370.62	1.0381
42.434	.9121	495.80	.2347
44.352	.9084	640.96	.4644
53.851	.8905		
	80.2 %		
1.197	0.9961	49.720	0.8324
4.037	.9868	54.766	.8152
9.491	.9689	58.719	.8019
10.131	.9668	66.349	.7767
11.622	.9618	74.089	.7523
13.538	.9554	83.652	.7243
16.588	.9453	98.464	.6884
17.092	.9436	107.70	.6995
18.527	.9387	139.29	.6411
20.082	.9335	162.61	.6490
31.872	.8935	203.61	.6930
36.147	.8789	322.86	.8873
37.868	.8730	467.86	1.1433
41.504	.8605		

Trautz and Melster, 1930

mol%	η			
	26.9°	126.9°	226.9°	276.9°
0	17.81	21.90	25.60	27.27
8.00	17.15	21.08	24.64	26.36
24.05	15.74	19.56	22.92	24.53
41.94	14.17	17.85	21.00	22.54
56.95	13.08	16.55	19.63	21.08
76.21	11.69	14.91	17.86	19.21
85.93	11.10	14.30	17.14	18.48
100	10.33	13.48	16.22	17.53

Edwards and Rosevear , 1942

mol%	second virial coefficient (Amagat units. 10^4)
25°	
41.83	-24.4

Nitrogen (N_2) + Benzene (C_6H_6)

Lewis and Luke, 1933

t	mol% L	mol% V	t	mol% L	mol% V
	75 atm.			98 atm.	
100	95.50	3.60	100	94.05	3.20
125	95.50	6.64	125	94.05	5.88
150	95.50	10.60	150	94.05	9.55
175	95.50	16.65	175	94.05	14.70
200	95.50	26.00	200	94.05	22.45

Miller and Dodge, 1940

p	mol % (L)	p	mol % (L)
	30°		
120.7	94.91	297.5	89.49
218.1	91.655		
	75°		
61.3	96.55	208.0	89.38
109.0	94.02	252.2	87.35
155.5	91.835	298.4	85.42
	100°		
61.9	96.04	198.3	88.35
106.3	93.37	269.0	84.50
155.5	90.55	301.6	82.50
	125°		
63.6	95.70	201.5	86.21
103.6	92.89	251.0	82.84
151.4	89.63	303.1	79.56
201.5	86.12		
	150.0°		
297.0	76.04		

p	mol % (V)	p	mol % (V)
	75.0°		
61.3	2.453	208.0	2.047
109.0	1.978	252.2	2.233
155.5	1.952	298.9	2.453
	100.0°		
61.9	4.66	232.6	3.685
97.5	3.785	243.3	3.73
98.2	3.70	251.5	3.745
106.3	3.735	274.4	3.90
151.2	3.555	286.6	3.945
152.8	3.50	294.7	4.10
155.5	3.47	302.6	4.04
155.5	3.463	307.8	4.14
198.5	3.617	314.5	4.055
	125.0°		
63.6	8.32	201.5	6.055
103.6	6.53	251.0	5.91
151.4	5.94	303.0	6.09
197.3	5.90		

Nitrogen (N_2) + Carbon oxide (CO)

Verschoyle, 1931

t	p	t	p
L + V			
19.9%		40.05%	
-193.88	884.0	-193.90	813.3
-198.13	532.5	-198.13	489.0
-203.07	270.2	-203.07	246.1
60.0%		79.95%	
-193.90	742.5	-193.90	658.8
-198.12	439.5	-198.13	388.1
-203.77	210.8	-203.80	189.8

%	t	p
L + C		
19.9	-209.12	100.4
40.05	-208.145	108.4
60.0	-207.12	112.2
79.95	-205.98	119.4

t	p	t	p
sat.sol.			
-185.44	1431.45	-205.01	114.95
-188.06	1100.9	-205.03	114.86
-190.865	813.15	-207.43	70.42
-192.07	709.0	-210.815	32.99
-193.955	566.0	-212.785	19.81
-196.55	407.75	-215.70	8.88
-199.325	279.15	-218.830	3.26
-202.27	180.09	-218.870	3.25
-204.96	116.05		

Steckel, 1935

t	P	t	P
89.0mol%		79.0mol%	
-159.5	14.12	-161.3	13.10
-162.1	12.21	-166.8	10.00
-164.0	10.79	-170.6	7.18
-165.9	9.53	-177.5	4.22
-169.1	7.72	65.0mol%	
-171.9	6.52		
-178.8	3.78	-184.2	2.53
-184.7	2.27	-188.8	1.61
59.7mol%		58.2mol%	
-159.5	15.58	-183.8	2.48
-163.1	12.61	-184.0	2.45
-166.8	9.97	-186.5	2.12
-171.9	7.14	-188.2	1.75
-178.7	4.40		
-188.5	1.83		

t	P	t	P
43.4mol%		35.2mol%	
-165.5	11.30	-185.9	2.44
-166.8	10.37	-186.2	2.36
-168.4	8.70		
24.0mol%		19.1mol%	
-154.5	22.39	-189.8	1.76
-158.71	17.97	-189.8	1.73
-163.5	13.68		
-168.31	10.22	16.6mol%	
-177.6	4.58		
-188.71	2.11	-160.81	16.30
		-164.10	13.58
16.0mol%		-167.5	11.03
		-172.71	7.26
-159.95	16.75	-188.3	2.13
-164.8	12.75		
-170.2	8.70		
-170.7	8.85		
-181.2	4.05		
-181.9	3.80		

Ruhemann, 1935

%	f.t.	m.t.	%	f.t.	m.t.
0	-210.05	-210.05	52.9	-207.10	-207.95
10	209.25	210.15	60	206.35	207.65
17.4	209.15	209.45	70	206.15	207.65
25	208.85	209.50	74.6	206.10	207.05
30	208.30	209.10	79.8	205.80	206.75
40	207.40	208.45	90	205.25	205.80
49.3	-207.55	-208.30	100	-204.95	-204.95

%	tr.t.		%	tr.t.	
	begin.	end		begin.	end
0	-237.75	-237.75	52.9	-223.05	-221.45
30	230.75	227.85	59.65	-	219.55
40	228.45	225.35	74.6	218.75	216.55
50	-225.35	-222.35	90	-214.95	-213.35

Trautz and Melster, 1930

%	η (V)			
	26.9°	176.9°	226.9°	276.9°
0	17.81	21.90	25.60	27.27
18.46	17.82	21.86	25.60	27.21
22.89	17.81	21.93	25.55	27.22
39.70	17.81	21.83	25.58	27.19
65.68	17.75	21.91	25.49	27.22
77.80	17.78	21.84	25.51	27.21
83.71	17.74	21.84	25.51	27.19
100.00	17.76	21.83	25.48	27.14

Nitrogen (N_2) + Carbon dioxide (CO_2)

Trautz and Emert, 1926

p	excess pressure (by mixing)	
22°		
751	0.375	50 vol%

Fuchs, 1918

vol%	Dv (in %)	vol%	Dv (in %)
	19.5°	716mm	
10	+1.025	60	+2.41
20	1.96	70	2.00
30	2.49	80	1.46
40	2.72	90	0.81
50	2.615		

Edwards and Roseveare, 1942

mol%	second Virial coefficient B_{12} (Amagat units . 10^4)
25°	
48.13	-21.2

Haney and Bliss, 1944

P	PV/RT 25°	50°	75°	100°	125°
			50.48mol%		
30	0.9331	0.9521	0.9656	0.9748	0.9827
50	.8903	.9226	.9446	.9600	.9725
75	.8403	.8888	.9210	.9440	.9615
100	.7964	.8593	.9012	.9309	.9530
125	.7624	.8360	.8860	.9212	.9475
150	.7413	.8201	.8762	.9147	.9444
175	.7340	.8131	.8722	.9123	.9444
200	.7403	.8151	.8726	.9143	.9475
225	.7533	.8228	.8776	.9208	.9538
250	.7715	.8360	.8871	.9291	.9619
300	.8269	.8738	.9174	.9549	.9848
350	.8878	.9246	.9580	.9880	1.0150
400	.9531	.9787	1.0039	1.0267	.0504
450	1.0204	1.0370	.0548	.0736	.0919
500	.0881	.1001	.1120	.1212	.1313

P	PV/RT 25°	50°	75°	100°	125°
			25.13mol%		
30	0.9696	0.9805	0.9874	0.9925	0.9963
50	.9524	.9698	.9814	..9895	.9957
75	.9349	.9593	.9757	.9880	.9968
100	.9222	.9527	.9734	.9889	1.0000
125	.9149	.9497	.9743	.9921	.0051
150	.9132	.9507	.9782	.9975	.0119
175	.9174	.9562	.9853	1.0053	.0204
200	.9269	.9652	.9952	.0155	.0307
225	.9409	.9786	1.0071	.0271	.0424
250	.9583	.9944	.0208	.0409	.0553
300	1.0011	1.0320	.0550	.0718	.0848
350	.0546	.0762	.0940	.1078	.1183
400	.1140	.1267	.1386	.1488	.1555
450	.1742	.1833	.1872	.1927	.1961
500	.2372	.2373	.2383	.2379	.2374

Pfefferle jr., Goff and Miller, 1955

compressibility constants at 30°

mol%	B.10^4 (atm.$^{-1}$	C.10^6 (atm.$^{-2}$)	b.10^4 (atm.$^{-1}$)	c.10^6 (atm.$^{-2}$)
100	-47.52	-15.56	-47.52	-4.26
73.507	-32.155	-3.933	-32.155	+1.237
51.709	-21.07	+0.347	-21.07	+2.57
29.330	-11.84	+2.326	-11.84	+3.03
0	-1.68	+2.400	-	-

$Z = 1 + Bp + Cp_2$

and for mixtures rich in CO_2 :

$\ln Z = b (RT/v) + c (RT/v)^2 + d (RT/v)^3$

Nitrogen (N_2) + Carbon tetrachloride (CCl_4)

Dean and Walls, 1947

Solubility of N_2 at 25° : 0.15 cc in 1g. CCl_4

Nitrogen (N_2) + Methyl alcohol (CH_4O)

Krichevski and Lebedeva, 1947

P	cc N_2/ 1 g CH_4O 0°	25°	50°	75°
48.4	7.7	8.2	8.7	9.3
97.8	15.1	16.4	17.4	18.7
145	21.9	23.2	25.1	27.1
194	28.5	30.5	33.1	36.0
242	-	37.2	40.1	44.5
280	-	-	-	51.6
291	-	-	47.4	-

Phosphorus (P) + Decane ($C_{10}H_{22}$)

Hildebrand and Buehrer, 1920

white: C.S.T. above 300°

Phosphorus (P) + Benzene (C_6H_6)

Giran, 1903

%	f.t.	%	f.t.
98.0	18	90.9	81
95.8	36	88.9	99
93.6	58	87.6	115
92.3	70		

Phosphorus (P) + Naphthalene ($C_{10}H_8$)

Hildebrand and Buehrer, 1920

mol% (white) P_4	sat.t.	mol% (white) P_4	sat.t.
74	132.8	26.	201.6
51	201.4	25	200.2
44	195.5	20	190.4
40	202.7		

Phosphorus (P) + Anthracene ($C_{14}H_{10}$)

Hildebrand and Buehrer, 1920

C.S.T. = 198°

Phosphorus (P) + Phenanthrene ($C_{14}H_{10}$)

Hildebrand and Buehrer, 1920

mol% (white) P_4	sat.t.	mol% (white) P_4	sat.t.
45	199.2	27	199.1
43	199.5	20	198.0

Phosphorus (P) + Bromoform ($CHBr_3$)

Hildebrand and Buehrer, 1920

white: miscible

Phosphorus (P) + Methylene iodide (CH_2I_2)

Madan, 1897

%	n H_α	n D	n H_β	n H_γ
	18°			
50	1.929	1.944	1.984	2.021

Phosphorus (P) + Ethylene bromide ($C_2H_4Br_2$)

Hildebrand and Buehrer, 1920

mol% (white) P_4	sat.t.	mol% (white) P_4	sat.t.
59	169.6	44	165.5
56	165.0	37	162.0
53	163.0	19	151.7

Phosphorus (P) + Chlorbenzene (C_6H_5Cl)

Hildebrand and Buehrer, 1920

White phosphorus : C.S.T. = 264°

Bingham, 1907

C.S.T. = 190°

Phosphorus (P) + p-Dibrombenzene ($C_6H_4Br_2$)

Hildebrand and Buehrer, 1920

mol% (white)P_4	sat.t.	mol% (white)P_4	sat.t.
50	154.3	39	163.0
51	159.4	30	159.2
46	162.0		

Phosphorus (P) + Carbon disulfide (CS_2)

Beckmann, 1890

%	d
	46.3°
100	1.2223
92.18	1.2549

%	d (at b.t.)	D b.t.
99.467	1.2244	+0.098
98.443	.2284	0.292
97.421	.2325	0.486
96.411	.2366	0.662
94.59	.2443	0.980
93.08	.2509	1.242
90.22	.2640	1.719
89.34	.2683	1.810
84.13	.2949	2.630

Cohen and Inouye, 1910

%	f.t.	%	f.t.
68.60	-10	25.00	-2.5
64.15	-7.5	18.73	0.0
58.05	-5.0	13.70	+5.0
33.86	-3.5	10.20	+10.0
28.28	-3.2		

34% sat.t.= -8°

Giran, 1914

%	f.t.	%	f.t.
95.4	-79	33.2	-3.5
90.5	-49	24.2	-2
80.9	-23	16.4	0
78.9	-19	15.2	+3
77.6	-14	10.8	+14.5
69.1	-9	7.2	+25

Hildebrand and Buehrer, 1920

mol% (white)P_4	sat.t.	mol% (white)P_4	sat.t.
94	-7.8	50	-6.4
66	-6.7	41	-6.4
57	-5.9	26	-6.6

Guglielmo, 1892

%	d	%	d
		13°	
100	1.273	87.85	1.514
96.57	.3529	53.50	.153
91.09	.455		

Berghoff, 1894

%	n_D	%	n_D
	20.7°		
100	1.62697	87	1.66517
95	.64012	83	.67628
91	.65216	80	.68646

Eggers, 1904

%	ε	%	ε
		18°	
100.0	2.65	80.1	3.35
96.27	2.76	73.0	3.40
88.0	3.15		

Bore (B) + Carbone (C)

Epelbaum, Gurevich and Ormont, 1956

Phase equilibria of various samples.

Jdanov, Meerson and al., 1954 (fig.)

%	hardness (Kg/mm²)	%	hardness (Kg/mm²)
20	5240	22	4500
21	4750	24	4490
21.5	4500	26	4480

LXX. HYDRIDES AND HALOGENIDES + ORGANIC COMPOUNDS .

Hydrofluoric acid (HF) + Benzophenone ($C_{13}H_{10}O$)

Klatt, 1935

m	D b.t.	m	D b.t.
0.087	+0.353	0.618	+2.471
.214	0.814	.768	3.109
.308	1.185	.927	3.814
.455	1.783		

Hydrofluoric acid (HF) + Benzil ($C_{14}H_{10}O_2$)

Klatt, 1935

m	D b.t.	m	D b.t.
0.085	+0.204	0.515	+1.061
.190	.430	.626	.252
.295	.656	.728	.421
.405	.859	1.005	.920

Hydrofluoric acid (HF) + p-Benzoquinone ($C_6H_4O_2$)

Klatt, 1935

m	D b.t.	m	D b.t.
0.153	+0.329	0.894	+1.919
.318	0.674	1.095	2.439
.501	1.059	1.293	2.919
.692	1.460		

Hydrochloric acid (HCl) + Ethane (C_2H_6)

Quint, 1901

0 %					
v*	P	v liq.	v*	P	v liq.
14.55°					
1890	38.03	-	420	38.14	162
1738	38.09	21	190	38.21	-
1615	38.09	31	189	38.25	-
902	38.09	106			

v*	P	v*	P
21.30°			
2157	37.18	1804	41.45
2149	37.25	1792	41.64
2122	37.58	1780	41.81
2105	37.81	1710	42.74
2086	38.01	1686	43.07
2065	38.23	1615	44.00
2043	38.46	1603	44.16
2023	38.69	1566[a]	44.25
1897	40.24	194[a]	44.47
1885	40.38		
30.23°			
2318	37.44	1820	43.81
2269	37.96	1733	45.20
2220	38.50	1628	46.85
2170	39.08	1505	48.94
2112	39.81	1402	50.75
2077	40.29	1230[a]	53.82
2041	40.74	219	53.95
1990	41.36	207[a]	54.10
1930	42.16		
49.45°			
2347	39.32	1431	54.64
2200	41.14	1261	58.47
2069	43.05	1148	61.20
1951	44.78	1027	64.18
1840	46.64	913	66.96
1712	48.88	830[a]	68.47
1591	51.17	239[a]	68.63
52.5°			
2706	37.22	1807	50.34
2546	39.08	1638	53.72
2358	41.45	1450	58.28
2168	44.14	1260	63.42
1986	47.05	1075	68.88

v crit. = 380 P crit. = 84.13 t crit.

P crit. = 84.13

t crit. = 51.3°

* v = fraction of theorical normal volume . 10^5

a = beginning and end of condensation .

13.18 mol %

v*	P	v liq.	v*	P	v liq.
		13.7°			
2019	37.20	-	1367	40.72	43
1957	37.86	-	1110	40.96	79
1897	38.54	-	868	41.21	109
1840	39.22	-	617	41.51	152
1783[a]	39.91	-	348	41.90	333
1725[a]	40.41	-	217[a]	42.13	-
1704	40.42	-	213[a]	42.33	-
1548	40.60	19			
		21.3°			
2132	37.84	-	1428[a]	47.48	-
2020	39.20	-	1382[a]	48.11	-
1897	40.74	-	1061	48.48	-
1783	42.27	-	576	48.86	118
1655	44.11	-	450[a]	49.52	176
1548	45.66	-	227[a]	49.97	-
		25.4°			
2270	37.19	-	1419	49.34	-
2145	38.63	-	1300[a]	51.41	-
2020	40.27	-	1212[a]	52.74	-
1893	41.94	-	961	53.10	54
1773	43.65	-	643	53.57	128
1655	45.43	-	408[a]	53.96	292
1540	47.29	-	236[a]	54.48	-
		30.23°			
2369	37.10	-	1257	54.25	-
2232	38.71	-	1255[a]	54.28	-
2045	40.98	-	1032[a]	58.36	-
1863	43.54	-	808	58.78	66
1707	45.99	-	479[a]	59.38	167
1569	48.34	-	250[a]	59.93	-
1404	51.35	-			

v*	P	v*	P
	41.45°		
2559	37:10	1136	62.25
2406	38.79	953	67.09
2221	41.20	853[a]	69.93
2031	43.88	613[a]	74.37
1854	46.71	515	74.72
1675	50.07	425[a]	74.95
1511	53.36	313[a]	75.26
1316	57.81		
	52.5°		
2735	37.15	1769	51.63
2690	37.62	1585	55.55
2531	39.48	1406	60.11
2342	41.96	1234	65.06
2146	44.78	1049	71.03
1959	47.92	878	77.04

v crit. = 420 P crit. = 77.51 t crit. = 43.1°

40.35 mol %

v	P	v liq.	v	P	v liq.
		14.1°			
2116	36.29	-	1345[a]	45.72	-
1918	38.51	-	949	45.86	102
1745	40.63	-	609[a]	46.10	205
1573	42.84	-	282[a]	46.94	-
1398	45.11	-			
		21.2°			
2241	36.55	-	1161[a]	51.79	-
2056	38.67	-	1045[a]	53.36	-
1867	41.03	-	839	53.57	172
1697	43.41	-	489[a]	53.76	245
1523	45.98	-	306[a]	54.25	-
1340	48.95	-			
		25.4°			
2294	36.83	-	1208	53.18	-
2098	39.16	-	1039[a]	56.18	-
1914	41.60	-	877[a]	58.42	-
1754	43.87	-	732	58.48	75
1583	46.59	-	511[a]	58.72	233
1401	49.73	-	332[a]	59.19	-
		30.23°			
2414	36.52	-	1162	56.46	-
2235	38.56	-	865	62.20	-
2059	40.83	-	610	64.80	-
1867	43.50	-	528	64.99	150
1698	46.21	-	465	65.10	287
1528	49.20	-	417	65.11	-
1341	52.80	-			
		41.45°			
2537	37.29	-	1461	54.60	-
2355	39.46	-	1292	58.58	-
2173	41.83	-	1105	63.49	-
1976	44.75	-	872	70.24	-
1799	47.70	-	582	78.02	-
1641	50.80	-			

t	v	p
30.43	439	65.30
30.53	471	65.42 (critical)
30.58	488	65.45

* v = fraction of theorical normal volume . 10⁵

a = beginning and end of condensation .

61.67 mol %

v	P	v liq.	v	P	v liq.
		14°			
2015	36.53	-	969	44.43	119
1854	38.28	-	775	44.70	187
1651	40.61	-	531[a]	45.13	265
1490[a]	42.56	-	327[a]	45.83	-
1355[a]	43.96	-	317	54.33	-
1177	44.17	56	305	66.94	-
		21.3°			
2160	36.69	-	857	51.92	89
1974	38.81	-	662	52.27	203
1786	41.18	-	484[a]	52.75	300
1612	43.56	-	365[a]	53.18	-
1422	46.18	-	337	63.01	-
1243[a]	48.73	-	326	69.15	-
1015[a]	51.64	-			
		25.4°			
2245	36.72	-	926[a]	55.39	-
2034	39.14	-	799[a]	56.55	-
1778	42.50	-	662	56.87	155
1550	45.83	-	550[a]	57.17	304
1306	49.65	-	416[a]	57.57	-
1122	52.66	-	361	64.38	-

a = beginning and end of condensation .

		27.25°			
2271	36,79	-	629	59.10	-
2152	38.16	-	612[a]	59.15	-
1928	40.96	-	583	59.19	58
1734	43.61	-	562	59.23	102
1554	46.40	-	546	59.28	250
1336	49.97	-	540	59.30	244 crit.
1119	53.65	-	498	59.34	-
893	57.14	-	469	59.54	-
772	58.35	-	439	60.06	-
714	58.68	-	406	61.56	-
684	58.88	-	384	63.98	-
666	58.91	-	366	67.80	-
		27.30°			
587	59.21	-	564	59.25	-

v	p	v	p
	30.23°		
2337	36.73	1432	49.60
2188	38.42	1256	52.70
2174	38.60	1057	56.41
1984	40.96	796	60.57
1795	43.63	493	63.64
1618	46.35	365	74.91
	41.45°		
2518	36.89	1192	59.26
2285	39.63	1185	59.40
2113	41.85	1045	62.97
1920	44.70	814	69.11
1740	47.67	579	76.07
1553	51.26	469	81.32
1372	54.99		
	52.5°		
2665	37.20	1624	53.38
2445	39.80	1391	58.90
2195	43.18	1192	64.42
2006	46.07	1017	70.19
1830	49.13	854	76.19
1817	49.42		

71.41 mol %

v	p	v liq.	v	p	v liq.
		14.5°			
1895	37.13	-	1153	42.63	81
1735	38.81	-	882	43.15	172
1598	40.31	-	611	43.77	264
1451	41.92	-	606	43.78	267
1448	41.96	-	347[a]	44.60	-
1422[a]	42.18	-			
		21.3°			
2066	37.15	-	1079[a]	49.08	-
1905	38.85	-	838	49.62	133
1709	41.26	-	582	50.44	282
1539	43.43	-	385[a]	51.10	-
1357	45.81	-			
		25.4°			
2142	37.24	-	1052	51.84	-
1974	39.17	-	853[a]	53.87	-
1774	41.69	-	709	54.26	135
1589	44.20	-	586	54.72	276
1426	46.54	-	434[a]	55.25	-
1237	49.35	-			

v	p	v	p
	41.45°		
2445	37.29	1362	54.08
2285	39.12	1179	58.10
2100	41.48	993	62.47
1910	44.18	800	67.27
1727	47.04	571	73.93
1545	50.42		
	52.5°		
2613	37.40	1662	51.70
2428	39.59	1187	53.13
2168	43.03	936	71.12
1921	46.90	758	77.77

t	v	p
27.33	530	56.92
27.34	677	56.49
27.35	811	55.69
27.37	576	56.84
27.39	664	56.62
-	645	56.68
--	671	56.75
-	590	56.87
27.40	617	56.83

100 %

v	p	v liq.	v	p	v liq.
		13.2°			
1968[a]	32.21	-	725	33.05	282
1818	32.29	37	434	33.53	362
1599	32.36	78	387	33.71	-
1321	32.48	143	368[a]	33.89	-
1032	32.72	210			
		21.3°			
1876	35.26	-	1479	38.66	-
1785	36.05	-	1469	38,72	-
1692	36.91	-	1464[a]	38.75	-
1599	37.70	-	526	39.76	353
1506	38.38	-	404[a]	40.13	-
1488	38.59	-			
		25.4°			
1822	37.02	-	880	42.56	184
1599	39.19	-	665	42.89	303
1414	40.88	-	477	43.29	410
1265	42.10	-	430[a]	43.54	-
1255	42.19	-			

v	p	v	p
	41.48°		
1785	42.13	1489	46.23
1767	42.34	1470	46.52
1748	42.63	1228	50.12
1730	42.83	1210	50.48
1711	43.10	1191	50.73
1526	45.74	1172	51.05
1507	45.99		
	52.5°		
1786	45.45	1489	50.26
1767	45.64	1470	50.68
1749	45.87	1228	55.47
1730	46.14	1210	55.81
1711	46.50	1191	56.11
1526	49.73	1173	56.65
1507	50.02		

t	v	p	
31.38	759	48.26	
31.63	759	48.79	
31.63	563	49.06	
31.83	669	48.95	
31.86	697	48.93	
31.88	652	48.94	(critical)
33.73	473	54.41	

Lecat, 1949

%	b.t. (48 atm.)	
48	15	Az
45	25.4	

Baume and Georgitses, 1912 and 1914

mol%	f.t.	m.t.	mol%	f.t.	m.t.
100	-172.5	-	42.3	-126.0	-
92.1	142.7	-	38.6	125.4	-
87.7	134.5	-	31.9	124.6	-125.5
81.0	131.0	-133.6	23.8	123.7	-
75.8	129.0	-	19.0	122.2	-
71.4	128.0	-	12.9	120.7	-
68.0	126.5	-126.5	8.8	118.7	-
62.4	126.4	-	5.1	116.6	-
59.6	126.4	-126.5	0	-111.6	-
52.8	126.2	-			
47.5	-126.1	-			

Hydrochloric acid (HCl) + Propane (C_3H_8)

Glockler, Fuller and Roe, 1933

P	P V				
	100%	76.4mol%	50.1mol%	15.0mol%	0%
			116.3°		
0	1.423	1.423	1.423	1.423	-
20	1.227	1.290	1.330	.360	-
40	0.956	1.115	1.220	.290	-
60	-	0.880	1.084	.202	-
80	-	-	0.929	.108	-
100	-	-	-	.007	-
			95.5°		
0	1.350	1.350	1.350	1.350	1.350
20	1.133	1.179	1.242	1.268	1.270
40	0.786	0.950	1.102	1.174	1.184
60	-	-	0.913	1.070	1.093
80	-	-	0.688	0.955	0.994
100	-	-	-	0.825	0.886

retrograde condensation

mol%	t range	P range
8.4	50.8 - 51.0	76.6 - 76.8
15.4	52.8 - 53.0	74.0 - 74.5
24.1	56.0 - 56.4	71.6 - 72.6
38.3	63.6 - 65.0	67.0 - 69.3
47.8	67.4 - 69.3	65.0 - 67.2
55.1	73.6 - 75.0	61.0 - 63.3
65.6	78.0 - 79.2	58.0 - 60.4
70.5	82.0 - 82.7	55.0 - 57.2
83.0	88.0 - 88.3	60.0 - 51.0
91.0	91.6 - 91.7	76.7 - 47.2

Hydrochloric acid (HCl) + Butane (C_4H_{10})

Ottenweller, Holloway Jr. and Weinrich, 1943

P	mol%	
	L	V
	21.0°	
4.5	96.7	61.2
7.76	89.2	25.5
8.1	89.2	24.3
13.6	77.3	13.0
14.4	76.9	10.7
19.3	65.9	10.6
22.0	57.4	9.8
23.9	53.5	9.6
27.4	43.6	9.5
	49°	
6.81	98.0	-
7.21	96.5	65.5
9.32	95.4	-
10.5	92.4	45.3
12.7	90.5	-
14.5	88.1	-
14.7	87.1	35.2
16.5	85.5	-
17.8	81.9	28.5
21.7	77.7	-
21.8	76.4	23.7
24.9	72.2	21.0
28.2	67.7	21.5
28.4	67.6	-
	82°	
13.5	96.5	75.5
13.9	97.2	76.2
17.3	94.2	56.3
17.5	92.7	61.3
20.8	90.5	53.3
21.6	88.6	50.6
24.9	86.7	44.7
26.2	84.6	43.7
31.7	80.6	41.8
32.9	79.9	41.5
36.1	77.6	40.6

Hydrochloric acid (HCl) + α-Butylene (C_4H_8)

Coffin and Maass, 1930 (fig.)

mol%	f.t.
25	-165
15	-135
5	-107
0	-105

Hydrochloric acid (HCl) + β-Butylene (C_4H_8)

Coffin and Maass, 1930 (fig.)

mol%	f.t.	mol%	f.t.
65	-165	25	-140
55	150	15	125
50	135	5	106
45	135	0	-105
35	-140		

Hydrochloric acid (HCl) + Methyl chloride (CH_3Cl)

Baume and Borowski, 1914

mol%	f.t.	mol%	f.t.
100	-93.0	49.7	-131.7
90.5	98.7	43.9	136.4
79.5	100.2	36.8	148.9
71.8	109.4	27.3	161
65.9	114.6	14.5	130.4
60.1	121.4	0	-111.0
56.2	123.3		
48.9	-131.7		

Hydrochloric acid (HCl) + Carbon dioxide (CO_2)

Ansdell, 1880 and 1883

t	p	t	p
	0%		
4.0	29.8	33.4	58.85
9.25	33.9	39.4	66.95
13.8	37.75	44.8	75.20
18.1	41.8	48.0	80.80
22.0	45.75	49.4	84.75
26.75	51.0	50.56	85.33
17.18%		19.37%	
0	27.84	0	28.86
15	40.66	13.8	39.86
27	54.22	25.5	52.77
37.5	70.28	38.0	67.36
46	82.26	44.0	76.23
47.2	92.21	45.5	80.52
25.48%		42.44%	
0	33.17	0	31.89
16.3	50.09	19.0	51.93
25.4	63.98	25.6	60.46
34.0	77.02	39.5	80.28
43.2	90.02		
45.67%		74.18%	
0	32.72	0	34.56
17.5	50.73	18.8	55.79
26.6	63.31	25.5	65.68
35.0	76.64	33.5	77.69
37.6	79.14		
38.0	81.35		
82.14%			
0	34.65		
18.8	56.44		
24.9	67.27		
32.4	77.23		

Dorsman, 1908

P	vol. 10^5*	P	vol. 10^5*
	0 %		
	20.09°		
30.95	2661	42.05	1090
32.20	2522	42.10	912
33.05	2434	42.10	616
33.95	2340	42.10	408
34.85	2251	42.20	264
35.80	2159	42.20	237
36.80	2073	42.25	203
37.80	1989	42.25	201
38.85	1903	44.70	198
39.95	1812	57.25	195
41.85	1643	67.80	193
41.95	1543	77.50	192
41.95	1458	87.35	191
42.05	1273		
	30.10°		
33.05	2646	52.40	1107
34.15	2582	52.50	991
36.05	2349	52.50	835
37.40	2169	52.55	647
40.10	2010	52.55	435
44.05	1725	52.60	230
46.70	1562	52.85	214
48.45	1465	57.90	211
49.90	1383	67.70	208
51.50	1283	75.80	205
52.35	1211		
	36.48°		
34.55	2597	58.80	1060
35.30	2528	60.15	998
36.90	2383	60.25	921
38.90	2213	60.30	784
41.10	2042	60.30	650
42.95	1923	60.35	498
44.95	1788	60.45	351
46.85	1680	60.50	285
49.15	1547	60.60	228
51.60	1428	63.05	225
53.55	1332	67.75	221
55.35	1237	77.25	215
57.05	1158	87.05	212
	38.75°		
34.40	2652	58.65	1132
36.00	2497	61.40	1013
37.20	2397	63.05	908
38.85	2251	63.05	822
40.00	2161	63.15	724
41.75	2037	63.15	695
43.15	1944	63.15	564
44.30	1849	63.20	435
46.00	1763	63.30	309
48.75	1611	63.35	232
50.70	1499	71.35	225
53.65	1371	78.45	221
56.05	1250	78.80	217
	40.20°		
34.50	2668	56.00	1282
36.15	2520	58.00	1192
37.25	2425	59.90	1105
38.25	2340	62.05	1016
40.20	2250	64.10	926
40.45	2155	65.00	871
41.60	2069	65.00	840
43.00	1982	65.00	793
44.30	1900	65.00	739
45.60	1815	65.05	618
47.15	1722	65.05	458
48.75	1632	65.20	223
50.55	1542	65.40	222
57.35	1459	71.10	214
54.15	1377	73.05	210

45.30°

P	vol.10^5*	P	vol.10^5
35.25	2680	60.50	1189
37.10	2519	62.75	1101
38.05	2431	65.00	1019
39.20	2340	67.75	916
40.25	2253	69.80	830
41.55	2155	71.95	732
42.70	2071	72.20	715
44.10	1983	72.30	658
45.60	1900	72.35	571
47.10	1807	72.35	457
48.65	1722	72.45	311
50.45	1629	72.45	265
52.15	1548	72.50	264
54.15	1461	72.50	260
56.10	1381	77.25	246
58.15	1283	80.45	241

49.38°

P	vol.10^5*	P	vol.10^5
36.30	2651	61.00	1238
37.35	2555	63.40	1149
39.30	2388	65.95	1064
40.50	2298	68.35	980
41.65	2201	70.95	886
42.95	2120	73.80	798
44.35	2029	75.95	710
45.75	1947	77.80	617
47.30	1862	78.30	572
48.95	1769	78.35	507
50.65	1679	78.50	417
52.50	1591	78.55	316
54.45	1509	78.60	291
56.10	1424	83.10	261
58.70	1332	90.30	246

51.20°

P	vol.10^5*	P	vol.10^5
36.40	2670	67.15	1056
37.65	2564	70.00	966
39.15	2435	71.50	886
40.35	2338	75.35	791
41.65	2244	77.90	695
42.70	2159	79.85	614
44.40	2052	81.05	511
46.25	1947	81.35	444
48.05	1850	81.35	417
49.55	1766	81.40	364
51.35	1676	81.45	354
53.20	1589	81.45	336
55.20	1507	81.80	309
57.30	1422	84.25	276
59.65	1320	86.05	268
61.95	1234	87.90	264
64.55	1142		

52.00°

P	vol.10^5*	P	vol.10^5
37.50	2598	59.70	1334
38.35	2519	62.30	1238
40.00	2385	64.80	1148
41.15	2296	67.45	1064
42.50	2199	70.20	978
43.50	2119	75.90	793
45.05	2031	78.50	704
46.55	1946	80.50	632
48.15	1859	82.25	507
49.75	1769	82.80	422
51.50	1689	83.60	309
53.40	1593	87.20	265
55.55	1504	91.95	260
57.65	1422		

* Fraction of theorical normal volume .

28.47%

19.94°

P	vol.10^5*	P	vol.10^5
33.35	2485	48.05	1062
34.35	2328	48.25	865
36.10	2204	48.35	678
37.70	2077	48.55	472
39.30	1949	48.80	335
41.00	1827	49.55	223
42.70	1697	58.75	217
44.60	1566	68.20	214
46.65	1441	77.45	212
47.65	1371	87.70	209
47.75	1254		

22.52°

P	vol.10^5*	P	vol.10^5
34.10	2452	50.80	1085
35.40	2342	51.05	895
36.85	2210	51.20	725
38.45	1928	51.50	527
40.10	1950	51.70	365
41.75	1825	52.05	229
43.60	1694	58.05	222
45.70	1476	68.70	219
47.75	1436	78.95	216
49.90	1320	87.30	213
50.65	1257		

25.69°

P	vol.10^5*	P	vol.10^5
34.45	2484	54.35	1135
36.05	2337	54.75	985
37.45	2213	54.95	833
39.00	2079	55.15	649
40.75	1953	55.35	485
42.50	1830	55.45	356
44.50	1697	55.85	246
46.70	1564	56.10	236
48.95	1436	68.40	225
51.30	1319	78.05	221
53.75	1178	87.95	218

28.47°

P	vol.10^5*	P	vol.10^5
35.20	2468	57.65	1051
36.75	2331	57.80	1043
38.25	2208	58.20	871
39.75	2078	58.50	693
41.55	1950	58.80	498
43.40	1827	59.15	290
45.45	1692	59.80	241
47.75	1561	68.25	232
50.10	1437	78.75	228
52.65	1312	88.30	223
55.30	1173		

29.96°

P	vol.10^5*	P	vol.10^5
35.25	2493	55.20	1216
37.10	2326	57.80	1087
38.50	2206	59.85	977
40.10	2072	60.20	819
41.95	1950	60.50	634
43.85	1826	60.85	420
45.95	1694	61.70	244
47.55	1603	67.70	238
50.00	1470	78.25	231
52.45	1355	87.95	226

33.34°

P	vol.10^5*	P	vol.10^5
35.80	2489	57.55	1176
37.55	2344	60.40	1051
39.05	2216	63.15	931
40.75	2080	64.40	861
42.50	1960	64.85	674
44.60	1830	65.30	491
46.90	1695	65.75	268
49.25	1565	66.40	256
41.90	1436	77.95	239
54.75	1318	87.95	234

P	vol. 10^5*	P	vol. 10^5
	35.82°		
36.70	2463	58.95	1173
38.20	2337	62.00	1046
39.80	2206	64.15	962
41.50	2075	67.25	830
43.40	1950	68.05	779
45.50	1825	68.55	603
47.80	1731	69.05	384
50.40	1556	69.90	265
53.00	1435	77.20	252
56.00	1305	86.90	241
	38.21°		
36;65	2506	62.35	1089
38.05	2387	65.40	970
39.65	2255	68.75	837
41.40	2120	71.40	712
43.15	1995	71.65	697
45.30	1871	72.15	533
47.55	1742	72.45	370
50.15	1602	72.65	305
52.65	1484	73.45	281
55.70	1362	80.80	257
58.90	1219	88.40	247
	40.10°		
36.75	2517	63.00	1091
38.25	2394	66.65	964
39.80	2265	70.10	837
41.60	2131	73.30	705
43.50	2000	74.50	631
45.75	1869	75.05	493
48.05	1742	75.50	338
50.60	1609	76.10	321
53.40	1480	83.35	265
56.40	1360	90.55	254
59.60	1222		
	42.19°		
77.00	570	78.50	398
78.05	527	78.55	370
78.30	468	78.65	357
78.45	429	80.30	305
	42.24°		
78.50	444	78.60	399
78.50	433	78.75	387
78.60	409	78.95	345
	42.29°		
78.30	507	78.65	420
78.50	441	78.80	377
	42.39°		
78.30	528	78.95	370
78.75	420	80.95	292
	42.49°		
77.15	617	78.95	406
78.40	524	79.30	345
78.75	448	81.50	329
	42.99°		
37.40	2508	58.55	1319
38.75	2391	62.10	1178
40.40	2261	65.65	1053
42.25	2131	69.50	926
44.00	2009	73.30	798
46.45	1878	76.75	666
48.35	1778	78.55	562
50.25	1672	80.15	352
52.00	1584	86.75	280
55.05	1454		

P	vol. 10^5*	P	vol. 10_5
	44.78°		
38.05	2492	58.25	1358
39.30	2382	61.70	1222
40.95	2254	65.60	1084
42.80	2122	69.50	959
44.80	1995	73.70	830
47.15	1865	77.50	702
49.40	1741	80.50	576
52.15	1606	82.40	435
55.15	1480	89.75	287
	47.77°		
38.30	2510	59.25	1363
39.75	2388	63.00	1223
41.40	2260	67.05	1090
43.40	2126	71.25	964
45.50	1994	75.85	832
47.85	1916	79.90	711
50.20	1743	84.30	562
53.10	1608	87.70	418
56.05	1482		
	49.76°		
38.60	2515	60.15	1362
40.15	2388	63.80	1223
42.00	2255	67.85	1095
43.90	2123	72.40	968
46.00	1994	77.30	830
48.35	1868	81.50	712
50.95	1742	86.35	568
53.70	1609	90.15	431
56.85	1479		
	51.75°		
39.40	2542	58.75	1434
41.20	2343	62.05	1321
43.00	2212	66.10	1179
44.80	2079	70.50	1048
47.15	1959	75.20	922
49.65	1830	80.25	789
52.40	1697	85.60	650
55.35	1565	91.70	476
	44.89%		
	20.44°		
33.10	2566	51.30	984
34.40	2433	51.50	843
35.90	2296	51.65	661
37.40	2169	51.95	435
38.95	2035	52.15	338
40.75	1906	52.25	259
42.55	1774	52.65	238
44.55	1638	54.80	234
46.75	1510	61.35	229
48.95	1383	68.15	225
50.95	1255	76.05	224
51.15	1122	84.85	221
	22.92°		
33.30	2590	54.25	1025
34.95	2433	54.35	899
36.45	2295	54.60	749
38.05	2163	54.80	573
39.65	2029	55.00	449
41.35	1905	55.15	355
43.25	1774	55.40	279
45.30	1641	55.40	256
47.50	1515	55.40	244
49.80	1390	55.65	243
52.15	1251	62.95	234
54.05	1144	71.05	231

25.30°

34.15	2560	55.95	1114
35.50	2429	57.10	1059
37.10	2294	57.35	936
38.65	2160	57.45	799
40.30	2029	57.75	635
42.15	1903	57.90	524
44.05	1774	58.30	314
46.20	1638	58.65	249
48.40	1507	67.60	239
50.95	1383	78.05	233
53.55	1241	87.10	226

27.78°

35.90	2430	60.45	962
37.50	2295	60.70	842
39.05	2159	60.85	707
40.80	2033	60.95	558
42.70	1905	61.20	423
44.75	1774	61.45	305
46.95	1638	61.65	288
49.45	1507	62.05	257
52.05	1383	70.75	244
54.70	1245	78.20	240
57.45	1109	87.05	234
59.85	994		

31.15°

35.20	2538	56.40	1236
36.60	2392	62.20	986
38.30	2295	64.95	856
39.95	2162	65.20	838
41.65	2034	65.55	707
43.65	1906	65.80	549
45.70	1778	66.20	360
48.20	1637	66.80	270
50.30	1525	76.95	252
48.55	1384	87.05	243

33.24°

35.60	2554	60.35	1110
37.00	2433	63.45	985
38.50	2299	66.50	855
40.30	2217	68.10	767
41.95	2041	68.65	640
44.10	1905	68.90	444
46.10	1787	69.30	304
48.40	1655	69.65	279
51.30	1508	77.25	261
54.25	1382	87.50	250
57.05	1250		

35.32°

36.40	2534	58.20	1223
37.55	2428	61.45	1108
39.20	2294	64.70	986
40.85	2159	68.10	852
42.70	2029	70.75	725
44.80	1903	71.45	671
47.10	1769	71.85	536
49.50	1634	72.35	332
52.20	1504	72.90	295
55.10	1382	78.50	270

37.51°

36.50	2549	62.55	1106
37.90	2423	66.25	977
39.45	2293	69.65	851
41.30	2161	72.90	720
43.20	2029	74.85	591
45.30	1903	75.30	457
47.55	1774	75.75	375
50.05	1627	76.25	314
52.85	1508	82.80	279
55.90	1382	88.85	267
59.10	1240		

37.71°

75.35	574	75.85	411
75.65	502	76.50	321

38.01°

75.95	545	76.50	373
76.30	440	76.85	326

38.21°

76.35	529	76.75	374
76.50	423	76.90	340

38.41

76.75	502	77.05	385
76.80	459	77.25	351
77.00	405		

38.61°

77.00	479	77.30	410
77.15	439		

40.20°

37.50	2515	60.40	1238
38.50	2423	64.05	1100
40.15	2290	67.80	986
42.00	2159	71.75	851
43.90	2023	75.35	719
46.05	1903	78.05	591
48.40	1773	80.15	448
51.00	1505	87.00	297
57.00	1383	91.70	278

43.48°

37.55	2561	58.25	1378
38.90	2437	61.75	1242
40.45	2312	65.60	1108
42.55	2160	69.90	977
44.40	2038	74.10	854
46.85	1902	78.45	714
49.20	1774	81.95	583
51.95	1637	85.10	471
55.00	1507	89.90	322

45.88°

37.95	2561	59.15	1384
39.45	2430	62.85	1239
41.30	2294	66.90	1108
43.15	2161	71.20	982
45.10	2033	75.80	850
47.55	1903	80.30	718
50.00	1771	85.15	573
52.70	1638	88.50	440
55.80	1508		

48.77°

38.65	2535	56.70	1474
40.00	2427	59.90	1394
41.80	2289	63.70	1255
43.70	2161	67.80	1123
45.80	2030	72.55	992
48.20	1903	77.55	856
50.70	1774	82.75	721
53.50	1644	87.90	588

51.76°

39.05	2552	57.75	1506
40.60	2439	61.35	1384
42.40	2294	65.20	1248
44.40	2161	69.75	1112
46.50	2030	74.40	990
49.05	1904	79.55	859
51.60	1774	85.40	724
54.60	1638	91.70	570

56.88%

20.35°

32.25	2651	53.00	1141
33.25	2544	53.05	1086
34.10	2457	53.15	997
35.00	2368	53.25	914
37.10	2189	53.25	820
38.15	2113	53.35	726
39.20	1999	53.40	623
40.40	1932	53.45	524
41.65	1844	53.55	431
42.90	1752	53.65	323
44.30	1662	53.70	249
45.70	1576	53.75	238
47.15	1493	58.15	235
48.70	1409	68.40	230
50.25	1317	78.25	226
51.85	1223	88.40	223

25.30°

33.25	2640	59.40	955
34.60	2503	59.50	874
36.05	2374	59.55	756
37.60	2244	59.80	577
39.30	2099	59.85	426
41.05	1974	60.00	275
42.90	1845	60.10	259
45.00	1710	60.25	253
47.05	1575	66.00	246
49.70	1455	73.10	241
52.35	1321	80.70	235
55.15	1179	88.05	232
58.60	1010		

28.50°

33.45	2669	60.55	1011
35.20	2506	62.35	923
36.85	2365	63.85	845
38.40	2232	63.95	777
40.05	2098	64.15	669
41.75	1980	64.30	521
43.85	1844	64.35	361
46.05	1709	64.45	296
48.45	1577	64.50	284
50.90	1456	64.55	266
52.80	1372	68.50	258
54.80	1268	76.55	249
56.75	1176	86.60	242
58.60	1096		

30.70°

33.85	2668	61.80	1011
35.30	2533	63.90	923
36.35	2437	65.85	831
37.70	2325	67.00	765
39.25	2197	67.15	695
41.10	2058	67.30	609
42.95	1940	67.40	477
45.00	1809	67.60	352
47.50	1666	67.75	278
50.00	1536	68.70	273
52.70	1413	73.70	262
55.70	1270	81.25	253
57.70	1183	83.50	250
59.65	1099	88.55	246

32.30°

34.10	2671	61.60	1057
35.50	2540	63.95	964
36.95	2414	66.20	877
38.55	2279	67.95	789
40.20	2144	69.55	690
42.15	2016	69.70	626
44.20	1889	69.80	498
46.40	1756	69.95	396
48.10	1659	70.00	350
49.70	1579	70.20	306
51.35	1496	70.30	289
53.30	1414	76.50	268
55.40	1309	82.15	259
57.40	1226	87.35	253
59.50	1139		

33.50°

34.70	2634	61.16	1099
36.25	2498	63.50	1014
37.80	2324	65.90	918
39.35	2242	67.95	836
41.15	2100	70.00	737
43.15	1974	71.50	650
45.25	1845	71.65	548
47.60	1710	71.85	400
50.10	1578	71.95	318
53.05	1447	72.10	301
54.90	1368	77.60	273
56.90	1272	82.90	263
58.95	1186	87.05	258

35.60°

34.90	2651	73.45	648
36.50	2503	74.65	564
37.95	2389	74.85	539
39.85	2236	74.95	526
43.50	1983	74.95	477
45.75	1847	75.10	443
48.20	1711	75.15	421
50.75	1579	75.15	397
53.55	1456	75.30	367
56.65	1324	75.30	348
60.00	1183	75.35	334
63.45	1057	77.95	298
67.05	927	83.05	278
69.25	853	86.80	269
71.65	749		

36.01°

75.65	471	75.95	366
75.70	459	76.30	333
75.75	441	76.85	318
75.80	426	78.35	301
75.80	409	81.40	286
75.85	385	86.40	273

36.08°

34.90	2660	67.60	918
36.60	2507	69.90	833
38.20	2368	72.00	744
39.85	2243	74.00	657
41.75	2098	75.35	560
43.70	1976	75.75	477
45.90	1845	75.80	457
48.25	1710	75.90	385
50.85	1584	76.25	336
53.80	1456	77.45	309
56.90	1321	80.90	288
59.95	1193	83.80	280
62.65	1091	86.95	271
65.15	1006		

38.50°

35.35	2660	60.15	1228
36.80	2534	67.80	1098
38.25	2413	67.65	971
39.90	2279	71.75	833
41.65	2143	74.45	742
43.65	2016	76.60	654
45.80	1889	83.45	552
48.20	1756	79.65	437
50.80	1622	80.85	352
55.65	1496	86.80	293
56.75	1373	91.05	280

42.20°

36.10	2651	63.05	1185
37.80	2507	65.65	1099
39.35	2376	68.60	1088
41.20	2235	71.35	927
43.10	2100	74.60	831
45.15	1979	77.40	744
47.50	1852	80.55	641
50.00	1674	82.95	550
52.80	1584	85.10	457
56.00	1456	88.25	356
59.35	1322	95.05	300

45.00°

37.15	2602	61.60	1277
38.60	2477	65.65	1144
40.60	2328	70.10	1012
42.35	2194	74.55	802
44.30	2065	79.75	746
46.60	1936	83.55	637
48.95	1810	87.95	501
51.85	1666	92.75	371
54.90	1536	96.60	323
58.05	1414		

49.15°

38.00	2590	59.65	1414
39.30	2479	63.45	1273
41.35	2328	67.55	1147
43.20	2194	72.50	1010
45.30	2062	77.50	883
47.65	1933	83.20	744
50.10	1808	88.70	614
53.00	1670	94.00	499
56.30	1534	96.40	441

52.20°

39.05	2556	59.35	1496
40.85	2353	62.05	1372
42.75	2277	65.80	1229
44.55	2148	70.95	1093
46.93	2016	76.00	969
49.40	1889	80.95	850
52.10	1756	88.40	690
55.15	1622	94.35	553

59.75%

21.06°

33.45	2500	54.75	858
35.20	2338	54.85	728
36.70	2207	54.95	630
38.35	2073	55.00	472
39.95	1949	55.10	369
41.75	1825	55.30	255
43.65	1694	55.45	243
45.90	1562	55.50	242
48.15	1436	62.00	233
50.45	1315	72.00	228
52.85	1178	80.75	224
54.45	1091	90.40	220
54.70	902	96.20	218

23.47°

34.20	2481	57.70	915
35.90	2322	57.80	762
37.45	2190	57.90	654
38.90	2071	58.05	546
40.60	1947	53.05	432
42.45	1823	58.25	273
44.45	1693	58.35	254
46.70	1562	58.40	247
49.05	1438	58.45	246
51.20	1331	66.10	238
53.25	1220	76.30	231
55.85	1090	85.86	227
57.55	998	96.15	222

26.39°

34.90	2459	61.65	881
36.60	2319	61.80	773
38.10	2196	61.95	622
39.70	2065	61.95	472
41.30	1941	61.95	378
43.35	1824	62.15	298
45.45	1734	62.20	274
47.85	1559	62.40	262
50.15	1437	62.55	258
52.90	1381	71.10	245
55.60	1176	80.90	237
58.40	1049	91.00	231
60.95	924		

28.17°

35.35	2452	64.00	830
36.85	2323	64.25	813
38.30	2203	64.35	726
40.00	2065	64.45	601
41.70	1950	64.65	478
43.90	1814	64.65	367
45.95	1688	64.80	282
48.25	1562	64.90	271
50.90	1435	65.05	265
53.65	1307	71.65	252
56.55	1169	77.75	245
59.45	1042	84.85	238
62.20	920	94.65	234

32.24°

35.55	2510	67.00	831
36.95	2439	69.60	708
38.55	2248	70.20	659
40.25	2205	70.40	618
42.05	1990	70.50	489
44.05	1867	70.65	334
46.30	1738	70.95	290
48.70	1606	71.20	288
51.40	1475	78.15	264
54.30	1357	86.20	252
57.40	1213	91.65	247
60.45	1090	95.45	245
63.80	962		

33.39°

35.70	2508	72.25	562
37.25	2378	72.30	488
38.65	2247	72.40	476
40.55	2118	72.50	409
42.45	1987	72.60	378
44.55	1858	72.60	359
46.90	1729	72.60	351
49.20	1597	72.65	323
51.90	1471	72.75	310
54.95	1350	72.85	306
57.85	1312	75.70	282
61.15	1174	81.90	264
64.55	964	87.00	256
67.95	835	90.60	253
70.90	700	96.30	247
72.15	615		

34.33°

36.45	2467	66.35	922
38.05	2330	69.65	793
39.65	2201	72.50	658
41.30	2073	73.65	562
43.20	1950	73.85	490
45.25	1831	73.90	438
47.70	1694	74.15	344
50.20	1565	74.40	317
53.20	1432	80.70	274
56.10	1312	86.40	263
59.25	1177	91.50	255
62.80	1043	96.05	252

34.83°

73.85	609	75.05	330
74.60	527	81.15	277
74.65	493	86.80	264
74.70	438	91.20	258
74.85	381	96.40	253
74.95	338		

35.14°

72.70	696	75.40	365
75.10	523	75.45	358
75.30	483	81.45	281
75.30	463	86.65	268
75.30	431	90.85	261
75.30	404	96.60	253

35.32°

73.15	683	75.65	372
74.95	562	76.10	326
75.45	486	76.50	317
75.50	442	80.90	283
75.55	413	85.35	272
75.65	394		

38.70°

39.90	2259	63.70	1088
41.80	2119	67.80	965
43.70	1988	71.95	832
46.00	1864	75.85	701
48.25	1738	79.20	553
50.95	1601	81.45	387
53.85	1474	85.80	306
57.00	1351	91.40	282
60.35	1216	96.80	271

40.70°

38.30	2404	61.15	1228
40.30	2246	69.00	961
44.10	1990	73.60	826
46.25	1868	77.50	702
58.70	1738	81.25	566
51.40	1605	84.60	410
54.40	1477	90,65	307
57.60	1356	96.30	284

44.77°

38.40	2478	57.00	1447
40.15	2338	59.65	1358
41.80	2211	64.55	1177
43.65	2093	68.75	1050
45.05	2005	73.50	924
47.10	1896	78.20	798
49.20	1779	83.30	667
51.75	1658	88.70	523
54.10	1560	95.20	369

48.57°

38.95	2468	61.85	1314
40.65	2338	65.90	1176
42.45	2207	70.50	1043
44.45	2073	75.50	914
46.70	1996	80.35	796
49.20	1824	86.15	666
51.90	1694	91.05	548
55.00	1557	95.95	439
58.20	1436		

51.76°

39.60	2466	59.25	1439
41.35	2338	63.20	1309
43.20	2206	67.40	1173
45.25	2073	72.10	1046
47.55	1949	77.10	924
50.05	1825	82.95	792
52.90	1693	88.60	673
55.95	1562	96.45	518

76.31%

20.37°

32.80	2530	55.55	1044
35.20	2329	55.70	924
36.75	2198	55.75	804
38.35	2061	55.90	596
40.05	1930	56.10	409
42.00	1809	56.40	310
43.80	1684	56.70	250
46.15	1545	65.75	238
48.35	1425	74.90	233
50.85	1295	81.65	230
53.45	1156	88.20	226

23.21°

33.50	2552	56.80	1066
34.90	2414	59.45	930
36.30	2291	59.55	783
38.05	2152	59.60	612
39.65	2022	59.75	438
41.50	1897	59.90	349
43.40	1767	60.25	261
45.55	1633	60.45	258
47.80	1512	68.15	244
50.50	1377	78.35	238
53.20	1239	88.05	233

25.99°

33.60	2575	60.35	975
35.30	2421	63.00	845
37.00	2281	63.30	824
38.55	2153	63.40	695
40.20	2022	63.55	543
42.20	1895	63.85	338
44.25	1764	64.00	276
46.55	1628	64.35	268
48.95	1500	71.15	254
51.60	1379	79.45	247
54.35	1240	88.75	240
57.35	1107		

30.85°

34.75	2542	60.05	1097
36.50	2410	63.30	973
37.85	2278	66.70	844
39.70	2144	69.50	712
41.40	2015	70.70	631
43.40	1893	70.90	521
45.50	1763	71.10	385
48.15	1623	71.35	304
50.70	1494	78.40	272
54.00	1356	86.10	259
56.75	1325		

31.95°

35.00	2552	67.50	844
36.45	2423	69.95	738
37.85	2305	71.95	622
39.65	2164	72.45	578
41.50	2031	72.65	515
43.55	1902	72.65	416
45.95	1765	72.70	393
48.20	1640	73.10	322
50.85	1510	73.40	313
54.00	1377	80.20	276
56.75	1252	86.85	265
60.10	1117	89.60	259
63.60	988	95.40	254

32.84°

35.35	2537	64.50	976
36.60	2421	68.10	846
38.25	2285	71.20	722
39.95	2146	73.55	588
41.75	2029	74.05	532
44.80	1899	74.30	484
46.10	1771	74.30	406
48.65	1629	74.30	363
50.25	1502	74.55	340
52.35	1371	79.70	285
57.50	1238	86.85	268
60.85	1109		

32.94°

74.15	525	74.35	413
74.30	479	74.50	382

32.99°

73.75	585	74.55	362
74.40	463	74.80	349
74.55	434		

33.04°

68.35	842	74.50	439
71.75	701	74.75	387
74.05	581	75.55	322
74.45	489	81.10	284

33.14°

71.10	752	74.70	380
73.30	619	75.70	320
74.35	515	83.60	272
74.55	430	90.20	265

35.52°

36.55	2499	59.85	1193
38.00	2359	63.45	1065
39.45	2241	67.35	936
41.10	2114	71.35	781
43.20	1980	75.05	665
45.35	1854	77.60	522
47.70	1721	78.55	427
50.40	1587	84.15	300
53.30	1461	91.00	277
56.50	1336		

38.51°

35.95	2567	59.90	1238
37.60	2422	63.60	1107
39.25	2288	67.80	978
41.05	2159	71.95	853
43.10	2022	76.10	726
45.30	1897	80.25	573
47.60	1766	83.35	427
50.25	1630	87.05	343
53.15	1501	91.25	303
56.40	1381		

42.29°

36.85	2553	57.75	1381
38.40	2421	60.95	1240
40.10	2287	65.50	1110
42.00	2154	69.90	982
43.90	2022	74.65	853
46.25	1897	79.65	714
48.75	1765	84.40	582
51.45	1632	90.70	398
54.55	1502		

44.78°

37.10	2570	57.40	1423
38.25	2470	61.20	1290
39.95	2339	65.45	1149
41.80	2200	69.75	1023
43.80	2066	74.90	888
46.10	1939	80.25	755
48.55	1810	85.60	621
51.15	1676	90.40	497
54.30	1545		

47.27°

37.80	2552	56.25	1502
39.30	2423	59.60	1382
41.10	2287	63.55	1240
43.05	2158	67.95	1108
45.10	2025	72.70	982
47.60	1897	77.60	852
50.10	1767	83.90	713
53.05	1631	90.05	577

49.76°

38.20	2543	56.85	1503
39.70	2419	60.40	1381
41.35	2294	64.50	1240
43.75	2163	68.95	1110
45.50	2028	74.10	982
48.05	1897	79.70	851
50.60	1771	85.80	719
53.55	1634	91.25	606

51.86°

38.60	2542	57.75	1500
40.20	2471	61.35	1380
42.05	2284	65.55	1239
43.95	2242	70.25	1079
46.20	2021	75.50	978
48.60	1897	81.00	853
51.35	1764	87.75	716
54.40	1629	91.50	643

85.74%

20.04°

33.50	2519	56.15	933
34.90	2333	56.25	912
36.40	2252	56.30	744
38.00	2125	56.45	586
39.60	1995	56.60	438
41.40	1873	56.95	297
43.35	1742	57.60	256
45.40	1609	61.45	249
47.70	1482	67.00	244
50.00	1362	76.20	238
52.60	1222	85.90	233
55.00	1095		

22.72°

34.20	2514	56.60	1091
35.55	2387	59.55	939
37.10	2254	59.75	917
38.70	2124	59.80	766
40.35	1995	60.10	525
42.25	1872	60.75	303
44.10	1744	61.20	264
46.40	1609	70.65	251
48.75	1481	80.20	245
51.30	1358	88.60	239
53.90	1222		

25.00°

35.05	2467	60.60	968
35.95	2389	63.00	842
37.55	2257	63.15	713
39.20	2125	63.25	544
40.80	1997	63.35	385
42.70	1874	63.75	318
44.75	1748	64.05	288
47.10	1610	64.20	276
49.55	1484	71.00	261
51.95	1371	80.80	252
55.05	1222	90.25	246
57.80	1100		

27.48°

35.10	2504	62.05	968
36.45	2382	65.05	837
38.05	2254	66.75	736
39.65	2124	66.80	652
41.40	1995	66.90	502
43.40	1871	67.35	346
45.45	1743	67.70	294
47.90	1608	67.90	291
50.45	1479	76.25	266
52.70	1390	85.70	256
56.05	1220	91.10	252
59.15	1087		

31.35°

35.70	2511	61.10	1089
37.10	2390	64.50	967
38.75	2256	68.00	833
40.40	2128	70.85	705
42.25	2000	72.90	545
44.35	1872	73.25	421
46.65	1785	73.60	345
49.10	1608	73.80	330
51.85	1478	80.90	283
54.75	1360	89.45	269
57.80	1221		

31.65°

73.55	510	73.80	379
73.80	449	74.00	348

31.75°

73.75	498	73.85	420
73.75	473	73.95	401
73.80	441	74.05	370

31.80°

73.85	473	74.10	393
74.00	433	74.40	366
74.05	406		

35.32°

36.40	2520	59.65	1220
37.85	2391	63.20	1090
39.45	2262	67.05	965
41.35	2126	71.00	834
43.20	1999	74.80	701
45.40	1873	77.80	561
47.80	1742	79.75	423
50.40	1608	86.95	305
53.15	1481	91.00	291
56.25	1361		

38.01°

37.15	2503	57.45	1359
38.50	2385	60.95	1218
40.20	2251	64.85	1086
42.05	2122	68.70	967
44.05	1993	73.15	812
46.25	1867	77.20	703
48.65	1740	80.85	571
51.30	1608	84.10	428
54.30	1479	89.90	326

40.80°

37.40	2518	58.55	1356
39.05	2379	62.15	1215
40.85	2248	66.35	1091
42.70	2115	70.45	961
44.75	1985	75.45	824
47.00	1863	79.65	705
49.50	1736	84.40	568
52.30	1602	89.00	426
55.50	1472		

42.79°

37.80	2522	59.20	1361
39.25	2397	62.65	1233
41.05	2263	67.05	1094
42.95	2132	71.35	973
44.90	2005	76.15	844
47.35	1878	81.20	711
49.75	1750	86.30	576
52.60	1617	90.85	455
55.80	1483		

44.88°

38.45	2508	56.55	1478
39.75	2382	60.00	1423
41.55	2253	63.75	1221
43.45	2119	68.05	1091
45.55	1991	72.95	961
48.05	1864	78.00	832
50.50	1741	83.45	711
53.40	1607	88.80	571

47.57°

39.30	2471	57.55	1480
40.35	2385	61.05	1360
42.20	2198	65.00	1222
44.15	2116	69.50	1089
46.25	1991	74.85	955
48.75	1867	79.80	833
51.35	1739	85.60	705
54.35	1614	91.15	588

49.76°

38.95	2521	55.05	1601
40.65	2385	58.25	1476
42.50	2248	66.05	1216
44.60	2114	70.80	1082
46.90	1984	75.80	961
49.30	1861	81.55	828
51.90	1735	87.75	699

52.55°

39.50	2511	60.40	1436
41.60	2357	64.35	1314
43.85	2203	68.80	1173
46.00	2072	73.85	1045
48.30	1948	79.25	919
50.80	1821	85.40	794
53.70	1690	92.40	660
56.95	1560		

94.21%

22.92°

33.90	2531	56.70	1080
35.25	2402	59.40	945
36.80	2270	60.10	899
38.35	2138	60.20	765
40.05	2010	60.30	586
42.00	1886	60.55	324
44.00	1744	60.90	259
46.53	1606	67.95	246
48.70	1477	77.75	239
51.20	1355	87.10	234
54.05	1206		

25.89°

34.30	2556	56.60	1158
36.15	2386	59.55	1028
38.20	2216	62.25	902
39.80	2082	64.40	788
41.60	1956	64.65	509
43.65	1828	64.80	379
45.90	1687	65.25	271
48.25	1560	71.35	257
50.85	1430	79.10	248
53.55	1297	87.10	242

27.98°

34.30	2580	58.50	1115
35.60	2455	61.70	986
37.20	2319	64.90	850
38.95	2180	67.20	723
40.65	2048	67.55	698
42.65	1918	67.70	597
44.75	1786	67.75	408
47.10	1650	67.90	300
49.70	1516	68.35	287
52.00	1394	77.50	260
55.35	1255	87.55	248

29.86°

34.40	2604	59.25	1125
36.10	2450	62.70	991
37.55	2323	65.90	867
39.25	2187	68.65	739
40.90	2061	70.35	631
43.05	1921	70.60	549
45.20	1794	70.70	379
47.70	1651	70.95	312
50.25	1520	77.00	274
52.95	1403	87.10	256
56.20	1255		

30.48°

71.55	586	71.70	400
71.60	504	71.85	325

30.65°

71.90	569	72.10	351
72.00	492	72.20	325
72.05	412		

31.15°

72.75	519	72.95	343
72.80	456		

31.45°

73.30	466	73.35	387
73.35	420	73.45	371

31.50°

73.40	465	73.45	394
73.40	430	73.50	377

31.55°

34.95	2581	57.00	1249
36.45	2447	60.30	1118
38.05	2314	64.00	983
39.70	2179	67.55	850
41.65	2040	70.50	724
43.65	1912	72.00	635
45.80	1737	73.35	522
48.30	1648	73.70	367
51.00	1513	78.10	289
54.85	1391	87.05	265

34.73°

35.45	2601	55.35	1383
37.10	2445	58.45	1250
38.75	2310	62.25	1120
40.60	2170	65.95	985
42.35	2045	69.75	855
44.55	1913	73.75	713
46.90	1780	77.55	516
49.50	1639	81.25	326
52.15	1513	88.55	285

40.00°

36.45	2583	56.95	1398
37.90	2523	60.50	1253
39.65	2315	64.40	1119
41.45	2181	68.70	993
43.40	2048	73.60	862
45.70	1919	77.95	724
48.05	1789	82.45	584
50.70	1652	87.05	432
53.70	1520		

44.98°

37.35	2582	55.40	1520
38.95	2443	58.90	1394
40.65	2315	62.65	1251
42.50	2130	66.80	1123
44.60	2044	71.55	992
46.90	1920	76.55	863
49.45	1788	82.20	721
57.20	1651	88.55	575

51.56°

38.40	2584	57.55	1502
40.00	2452	61.05	1393
41.85	2368	65.40	1253
43.90	2175	69.80	1124
45.90	2055	75.15	994
48.50	1920	80.95	861
51.15	1787	82.50	729
54.15	1652		

100%

20.00°

33.75	2515	56.40	844
35.10	2339	56.45	707
36.60	2255	56.45	564
38.20	2119	56.50	400
39.85	1995	56.55	329
41.70	1867	56.55	307
43.50	1731	56.60	262
45.60	1604	61.10	257
48.00	1479	68.25	250
50.35	1356	74.90	246
52.85	1214	83.05	242
55.45	1080	90.10	239
56.40	1020	97.15	237
56.40	943		

22.30°

34.30	2508	59.45	924
35.65	2388	59.45	726
37.20	2253	59.50	684
38.70	2119	59.50	478
40.45	1993	59.55	352
42.25	1369	59.55	317
44.30	1737	59.55	268
46.55	1604	67.45	259
48.95	1473	75.20	252
51.40	1355	83.35	248
53.95	1214	89.45	245
56.70	1084	97.30	242

25.10°

38.75	2166	62.65	871
39.70	2079	63.35	831
41.05	1997	63.40	780
42.30	1912	63.40	730
43.70	1820	63.45	637
45.10	1736	63.50	510
46.60	1649	63.50	354
48.25	1561	63.60	302
49.80	1479	63.60	293
51.60	1397	63.60	284
53.55	1300	67.95	274
55.45	1212	75.90	264
57.30	1126	83.25	257
59.45	1040	90.90	250
61.05	951	95.95	248

27.00°

34.65	2551	63.05	913
35.95	2433	64.85	829
37.55	2299	66.30	745
39.15	2167	66.35	630
40.90	2037	66.40	674
42.80	1912	66.45	339
44.90	1783	66.50	328
47.20	1648	66.50	296
49.65	1520	72.95	277
52.40	1395	80.70	266
55.25	1260	87.75	259
58.10	1130	97.15	253
61.20	998		

	29.57°		
34.70	2589	63.05	987
35.90	2477	65.25	900
37.55	2344	68.20	768
39.15	2212	69.95	659
40.95	2075	70.25	621
42.80	1954	70.35	540
44.85	1827	70.40	383
47.15	1692	70.40	326
49.70	1559	77.05	287
52.45	1438	83.55	275
55.25	1316	91.40	266
58.05	1186	96.20	262
61.10	1059		
	29.98°		
70.90	601	71.10	337
71.05	471		
	31.00°		
72.65	507	73.35	339
72.75	454	73.85	330
72.80	424	74.90	318
72.80	405	78.55	297
72.80	401	85.45	281
72.80	374	90.80	273
73.10	352	96.60	267
	33.10°		
36.10	2523	62.35	1088
37.65	2394	66.10	959
39.25	2265	69.95	818
41.05	2122	73.15	685
43.05	1993	75.30	551
45.15	1870	76.10	449
47.50	1737	77.75	343
49.95	1605	83.10	303
52.85	1476	89.05	286
55.85	1354	96.75	275
59.15	1209		
	37.50°		
37.35	2485	60.05	1213
38.75	2363	64.75	1086
40.10	2265	68.80	958
41.85	2123	73.10	827
42.90	2001	77.30	684
46.25	1870	80.65	570
48.75	1736	83.45	429
51.40	1605	89.55	331
54.35	1478	96.30	303
57.55	1355		
	40.00°		
37.50	2521	58.50	1358
39.15	2386	62.15	1215
40.85	2254	66.15	1086
40.70	2119	70.40	959
44.70	1995	74.95	826
47.05	1869	79.20	703
49.50	1738	83.80	554
52.30	1603	90.70	371
55.30	1480	97.30	322
	42.70°		
37.45	2556	58.20	1404
38.85	2440	62.05	1256
40.65	2305	66.05	1130
42.40	2176	70.50	1000
44.50	2041	75.25	873
46.80	1915	80.35	736
49.20	1783	85.60	599
51.45	1651	91.30	448
55.05	1520	96.55	371
	46.20°		
38.40	2531	59.80	1397
40.20	2385	63.70	1256
42.05	2255	68.00	1123
43.09	2121	72.70	999
46.20	1996	77.90	867
51.15	1739	83.40	741
54.10	1605	89.50	601
56.35	1520	97.10	452
	48.80°		
39.10	2519	58.30	1408
40.65	2389	62.30	1354
42.60	2256	66.15	1215
44.55	2121	76.65	1087
46.90	1994	75.80	959
49.25	1870	81.45	826
52.00	1736	89.80	648
55.05	1603	96.60	523
	52.00°		
39.65	2514	59.45	1477
41.15	2395	63.20	1356
43.10	2257	67.45	1216
45.15	2124	72.20	1088
47.55	1996	77.60	959
50.15	1866	86.35	776
52.85	1738	91.25	680
56.05	1604	96.75	586

Jung and Schmick, 1930

%	η	%	η
	18°		
0	14.44	60	15.02
10	14.59	70	15.03
20	14.72	80	15.00
30	14.83	90	14.95
40	14.92	100	14.83
50	14.99		

Hydrochloric acid (HCl) + Methyl ether(C_2H_6O)

Shidei, 1925

P	P_2	P_1	P (1+1)
		1°	
0.99580	0.42929	0.44061	0.12590
.99408	.39646	.47834	.12120
.99593	.34717	.53199	.11766
.99540	.28252	.59824	.11466
.99698	.23831	.65630	.10240
.99513	.39183	.47298	.13026
.99593	.47171	.39912	.12513
.99593	.49920	.37507	.12617
.99580	.56700	.30778	.12104
.99593	.64292	.23913	.11382
.99633	.43473	.43359	.12803
.99660	.45659	.41411	.12588
.99672	.44082	.43022	.12566
.99566	.41510	.45771	.12287
.99672	.38405	.48815	.12451
		5°	
0.99555	0.43476	0.44639	0.11441
.99528	.44163	.44004	.11358
.99513	.37669	.50793	.11045
.99593	.24735	.65969	.08891
.99540	.43269	.43915	.12335
.99608	.37658	.50689	.11258
.99724	.26190	.64349	.09186
.99672	.28709	.60992	.09967
.99593	.51741	.36831	.11020
.99660	.49161	.39540	.10953
.99646	.47637	.41115	.10897
.99555	.45548	.42685	.11322
.99633	.57677	.31796	.10153
.99593	.74367	.16893	.08326
.99488	.40903	.46982	.11399
		9°	
0.99560	0.47462	0.42369	0.09724
.99560	.52093	.38292	.09170
.99550	.62062	.28223	.09261
.99660	.42210	.47568	.09683
.99560	.39173	.50880	.09506
.99580	.28420	.63154	.08003
.99450	.45608	.43990	.09845
		19°	
0.99580	0.46200	0.46099	0.07280
.99540	.45009	.46678	.06871
.99593	.44103	.48560	.06908
.99500	.41855	.51166	.06472
.99580	.31338	.62291	.05955
.99540	.47429	.45154	.06959
.99540	.49444	.43522	.06569
.99566	.53581	.39466	.06514
.99540	.64323	.29333	.05880
.99540	.46669	.46037	.06829
.99528	.38750	.54268	.06513

Kuenen, 1900 and 1901

%	t crit.	P crit.
0	53	85
100	124	52
max.	154	80
max.	118	110

Lecat, 1949

%	b.t.
0	-84
40	-1.5 Az
100	-23.65

Baume, 1911 and 1914

mol%	f.t.	mol%	f.t.
100	-138.0	43.5	-102.1
94.0	145.0	42.6	101.0
89.9	141.6	41.4	105.6
82.9	130.1	39.2	114.1
75.7	121.3	27.9	109.5
69.6	114.6	26.7	108.7
64.8	108.5	21.9	103.5
61.3	104.2	20.1	102.9
56.2	101.5	16.6	107.2
53.6	98.5	13.9	111.7
51.3	97.8	13.3	133.0
49.6	97.2	10.1	119.2
48.0	97.8	7.4	119.3
46.0	97.8	4.5	113.9
45.8	98.7	0.0	-111.5
44.2	-99.8	(1+1)	(4+1)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
0.0	-112.0	38.7	-121.2
5.5	122.7	39.3	117.0
8.0	126.0	45.4	103.0
10.4	128.7	47.8	100.4
15.9	120.6	52.8	96.8
21.8	115.8	62.8	100.4
23.5	116.8	68.8	106.0
24.7	118.8	75.6	115.0
27.9	101.2	81.4	123.0
30.4	105.7	90.2	132.4
30.9	106.1	100.0	138.0
34.5	-112.4		
(1+1)	f.t.= -96°	(3+1)	-102°

Maass and Mc Intosh, 1913

%	κ	%	κ
	-89°		
2.3	9.93	57.2	12.7
3.8	59.5	63.3	6.12
7.8	206.0	67.9	5.40
9.5	281.0	72.4	3.84
12.7	377.0	77.4	2.64
17.0	470.0	81.0	1.56
20.5	455.0	83.9	0.99
26.9	274.0	88.1	0.40
32.1	234.0	94.8	0.12
39.4	200.0	97.9	0.02
46.7	129.0	99.5	0.004
52.4	110.0		

Hydrochloric acid (HCl) + Ethyl ether ($C_4H_{10}O$)

Schuncke, 1894

%	b.t.	%	b.t.	%	b.t.
62.49	-9.2	66.35	+ 4	73.48	+17
62.51	-9	66.90	+ 5	74.00	18
62.58	-8	67.45	+ 6	74.56	19
62.68	-7	68.00	+ 7	75.10	20
62.82	-6	68.55	+ 8	75.65	21
63.00	-5	69.10	+ 9	76.19	22
63.20	-4	69.65	+10	76.73	23
63.42	-3	70.20	+11	77.27	24
63.70	-2	70.75	+12	77.82	25
64.00	-1	71.29	+13	78.36	26
64.40	0	71.78	+14	78.90	27
64.47	+0.5	72.27	+14.8	79.44	28
64.80	+1	72.38	+15	79.99	29
65.30	+2	72.93	+16	80.53	30
65.80	+3				

Maass and Mc Intosh, 1913

%	f.t.	%	f.t.
0	-112.0	46.2	-88.0
1.3	-114.0	49.8	-88.0
3.8	-116.5	50.5	-89.0
20.1	-108.0	53.0	-95.0
24.8	-93.0	53.1	-100.0
28.0	-89.0	57.0	-104.0
28.5	-90.0	58.7	-100.0
30.4	-90.0	61.9	-96.0
31.0	-92.0	63.5	-95.0
33.7	-96.0	65.8	-94.0
35.5	-100.0	67.0	-93.0
36.3	-98.5	67.8	-92.5
38.3	-93.0	69.7	-97.0
39.8	-90.0	71.8	-100.0
42.5	-90.0	74.1	-105.0
	(5+1)	(2+1)	(1+1)

Hirai, 1926

mol%	f.t.	mol%	f.t.
100.00	-117.7	36.29	-87.4
89.16	-118.8	31.70	-89.0
86.93	-119.3	27.39	-93.5
79.68	-124.2	21.06	-100.4
77.33	-127.8	18.76	-104.0
68.04	-126.5	11.20	-113.5
63.66	-115.4	40.55	-115.5
59.55	-110.9	16.08	-123.6
52.13	-100.4	5.76	-123.7
50.97	-100.9	4.65	-120.8
47.18	-107.3	3.87	-120.5
44.84	-94.5	0.00	-112.5
38.24	-89.3		
		(1+1)	(2+1)

Mc Intosh, 1928

mol%	f.t.	mol%	f.t.	mol%	f.t.
57.5	-102.9	45.8	- 97.9	30.0	-84.8
53.3	-101.3	43.5	-100.0	19.5	-99.6
52.7	-100.0	34.1	- 82.0	18.5	-96.2
50.0	- 98.6	33.6	- 82.0	16.4	-92.9
49.4	- 99.7	32.4	- 82.8	15.5	-92.6
46.8	- 98.9	31.4	- 83.2	15.0	-94.2
46.4	- 99.5				
		(1+1)	(2+1)		

Gladstone and Hibbert, 1897

%	molar refraction H_α	D	H_β
		18°	
71.77	11.21	11.23	11.25
82.30	11.07	11.38	11.41
83.44	11.16	11.18	11.26
89.51	11.04	11.05	11.27
90.90	10.82	11.06	11.10

Maass and Mc Intosh, 1913

%	κ	%	κ	%	κ
		-89°			
2.5	2.75	30.3	109.0	71.0	6.68
3.5	6.88	38.6	82.3	75.0	4.42
5.6	20.0	44.5	53.7	79.0	2.42
8.2	47.0	47.8	47.8	81.3	1.83
11.1	73.6	51.1	41.9	84.5	1.13
14.3	97.0	58.6	32.4	89.4	0.37
18.0	117.0	63.3	17.8	93.9	0.12
23.4	112.0	67.0	10.0	95.8	0.025

Mounajed, 1933

N (HCl)	λ 1	λ 2	N (HCl)	λ 1	λ 2
		18°			
0.02	5.88	85.3	3.49	105	177.0
0.06	2.80	20.6	3.83	772	185.5
0.20	11.7	14.7	4.50	277	290.6
0.39	7.3	-	5.50	629	594.7
0.81	5.4	8.1	6.33	1168	-
1.60	7.7	-	6.61	1732	-
2.21	17.8	23.2	6.69	1981	-
2.40	21.0	39.5	6.80	4123	-

1 : immediately 2 : after a month

Hydrochloric acid (HCl) + Isoamyl ether ($C_{10}H_{22}O$)

Perkin, 1894

%	sat.t.	%	sat.t.	%	sat.t.
0	81.35	9	83.73	15	85.24
5	83.09	13	84.77	25	88.57

t	d		t	d
4	0.8366	14.41%	9	0.8323

%	d (4°)	d (15°)	d (25°)
87.18	-	0.8263	0.8214
89.32	0.8252	0.8152	0.8108

%			%	
87.18	1.0361	19.6°	89.32	1.0205

Hydrochloric acid (HCl) + β,β'-Dichlorethylether ($C_4H_8OCl_2$)

O'Brien, 1942

m(HCl)	p_1	m(HCl)	p_1
	20.0°		
0.794	533	0.182	109
0.481	287	0.168	103
0.305	186	0.090	53
0.202	122	0.0419	23.7
0.198	116		
	25.0°		
0.571	418	0.165	124
0.556	401	0.140	94
0.555	413	0.126	84
0.538	378	0.103	68.3
0.518	363	0.0758	54.3
0.502	365	0.0572	38.1
0.308	215	0.0091	6.6
0.175	124		
	30.0°		
0.366	283	0.0292	25.6
0.343	260	0.0224	17.2
	40.0°		
0.291	307	0.165	160
0.265	307	0.0711	70.9
0.166	177		

Hydrochloric acid (HCl) + Anisole (C_7H_8O)

O'Brien, 1942

m(HCl)	p_1	m(HCl)	p_1
	20°		
0.109	82.7	0.0926	66.3
0.100	70.7	0.0378	30.3
	30°		
0.448	408	0.059	52.7
0.200	181	0.073	66
0.092	85		
	35°		
0.400	410	0.0764	77.8
0.253	264	0.0720	72.0
0.250	250	0.0449	45.9
	40°		
0.179	216	0.0929	106
0.0887	98.8	0.0735	82.3
0.0463	61.8		

Hydrochloric acid (HCl) + Acetone (C_3H_6O)

Hirai, 1926

mol%	f.t.	mol%	f.t.	
100	-94.5	54.88	-81.7	
85.57	-107.0	47.09	-80.0	
79.50	-111.4	44.44	-82.7	
72.71	-114.6	42.74	-86.6	
68.22	-104.2	39.61	-82.8	(1+1)
57.01	-85.7			

Mc Intosh, 1928

mol%	f.t.	mol%	f.t.
63.5	-91.5	36.8	-94.6
52.9	-76.9	30.3	-81.2
46.2	-78.0	28.3	-80.8
46.0	-78.0	25.7	-85.3
42.3	-84.6		(1+1)

Hydrochloric acid (HCl) + Ethyl formate ($C_3H_6O_2$)

Gerrard and Macklen, 1956

mol %	t	mol %	t
89.36	33.5	75.99	15.2
85.47	28.6	71.54	8.1
82.30	24.3		

Hydrochloric acid (HCl) + Methyl acetate ($C_3H_6O_2$)

Gerrard and Macklen, 1956

mol%	t	mol%	t
73.02	30.4	64.34	14.7
70.42	26.3	60.46	6.6
68.77	23.3	50.17	1.6
66.48	19.0		

Hydrochloric acid (HCl) + Ethyl acetate ($C_4H_8O_2$)

Gerrard and Macklen, 1956

mol%	t	mol%	t
80.3	-44.8	63.6	-15.1
73.2	33.3	61.0	9.7
70.6	28.7	58.8	-4.9
66.2	-20.4		

Hydrochloric acid (HCl) + Propyl acetate($C_5H_{10}O_2$)

Gerrard and Macklen, 1956

mol%	t	mol%	t
79.6	-46.4	61.2	-12.5
72.1	34.1	59.6	9.2
67.4	25.1	58.1	-5.7
65.1	-20.8		

Hydrochloric acid (HCl) + Isopropyl acetate ($C_5H_{10}O_2$)

Gerrard and Macklen, 1956

mol%	t	mol%	t
81.10	48.3	63.45	20.6
71.43	34.2	61.23	16.4
69.01	28.8	57.87	9.5

Hydrochloric acid (HCl) + n-Butyl acetate ($C_6H_{12}O_2$)

Gerrard and Macklen, 1956

mol%	t	mol%	t
78.18	45.0	64.27	19.7
74.80	39.5	60.06	10.7
68.16	27.5	57.44	4.8

Hydrochloric acid (HCl) + isoButyl acetate ($C_6H_{12}O_2$)

Gerrard and Macklen, 1956

mol%	t	mol%	t
78.37	44.2	63.89	20.5
72.30	34.9	60.46	14.3
69.54	30.5	56.43	6.1

Hydrochloric acid (HCl) + sec.Butyl acetate ($C_6H_{12}O_2$)

Gerrard and Macklen, 1956

mol%	t	mol%	t
78.12	44.7	63.93	21.4
71.84	35.5	60.64	15.7
68.54	29.9	55.00	4.1

Hydrochloric acid (HCl) + Octyl acetate ($C_{10}H_{20}O_2$)

Gerrard and Macklen, 1956

mol%	t	mol%	t
79.69	47.6	65.23	22.2
73.75	37.6	62.11	15.7
69.44	30.2	57.24	5.4

Hydrochloric acid (HCl) + Phenyl acetate ($C_8H_8O_2$)

Gerrard and Macklen, 1956

mol%	t	mol%	t
87.56	42.0	78.44	18.4
85.47	36.8	75.59	10.3
81.84	27.4	73.16	3.9

Hydrochloric acid (HCl) + Benzyl acetate ($C_9H_{10}O_2$)

Gerrard and Macklen, 1956

mol%	t	mol%	t
83.54	42.3	71.84	16.2
78.44	31.0	69.74	11.0
75.35	24.5	67.16	4.8

Hydrochloric acid (HCl) + 2-Chloroethyl acetate ($C_4H_7O_2Cl$)

Gerrard and Macklen, 1956

mol %	t	mol %	t
86.13	40.3	75.46	17.0
82.82	33.3	71.68	6.8
80.00	27.1		

Hydrochloric acid (HCl) + Ethyl propionate ($C_5H_{10}O_2$)

Gerrard and Macklen, 1956

mol%	t	mol%	t
80.64	46.2	62.77	14.3
76.05	38.5	60.91	10.3
69.88	28.3	59.38	7.0
66.13	20.8		

Hydrochloric acid (HCl) + Ethyl n-Butyrate ($C_6H_{12}O_2$)

Gerrard and Macklen, 1956

mol%	f.t.	mol%	f.t.
78.93	45.4	67.95	25.4
76.27	40.6	60.53	10.2
71.89	33.0	58.58	6.1

Hydrochloric acid (HCl) + Ethyl dichloracetate ($C_4H_6O_2Cl_2$)

Gerrard and Macklen, 1956

mol%	f.t.	mol%	f.t.
94.08	47.8	86.35	13.2
92.33	39.3	85.54	9.5
90.25	28.8	84.75	5.8
88.19	21.0		

Hydrochloric acid (HCl) + Ethylamine (C_2H_7N)

Elsey, 1920

M*	d	M*	d
	-33.5°		
0	0.742	0.7518	0.771
0.3817	0.767	1.489	0.811

M*	η	M*	η
	-33.5°		
1.4890	1863	0.18980	663.4
0.7518	986.0	0.09458	616.5
0.3817	761.4	0	574.9

M*	λ	M*	λ
	-33.5°		
0.001575	0.3686	0.1071	0.3560
.003181	.2815	.1898	.6276
.006492	.2255	.2105	.6787
.013420	.1980	.3817	1.461
.027110	.1980	.7518	2.854
.054060	.2383	1.4890	3.755
.094580	.3308	2.8720	2.557

*M (1+1)

Fritzgerald, 1912

M (1+1)	λ -33.5°	-15°	0°	+15°
6	-	0.763	1.54	2.59
4.221	-	2.49	3.83	5.38
3.073	2.44	4.08	5.56	7.02
2.165	2.53	5.16	6.35	7.39
1.575	-	5.40	6.17	6.67
1.303	3.91	4.94	5.61	5.97
1.109	3.80	4.58	4.97	5.28
0.670	2.76	3.10	3.17	3.06
0.342	1.36	1.34	1.25	1.13
0.175	0.605	0.568	0.492	0.430
0.0899	0.329	0.298	0.258	0.212
0.0460	0.245	0.225	0.193	0.162
0.0236	0.229	0.198	0.174	0.145

Hydrochloric acid (HCl) + Aniline (C_6H_7N)

Leopold, 1910

mol%	b.t. 225mm	b.t. 760mm	mol%	b.t. 225mm	b.t. 760mm
100.0	-	183.85	52.0	199.5	245.0
90.9	-	185.05	51.5	202.5	-
80.0	-	186.25	51.2	205.0	-
68.7	-	191.65	51.0	205.8	245.25
66.7	-	193.25	50.6	205.8	-
65.8	-	194.25	50.5	205.0	245.0
57.7	-	218.4	50.2	202.5	-
57.2	-	223.4	50.0	199.5	220.4
53.0	193.6	241.2	49.8	135	206.0
52.6	-	242.2	48.7	100	-

mol%	sat.t.	
1.1	20.0	
1.9	13.8	
5.3	10.5	C.S.T.
10.6	23.0	

C.V.T. = 51.1°

t	P		t	P	
	(1+1)				
113	0.3	C+V	197.5	15.8	
137	0.9		198	16.2	C+L+V
156	2.3		199.2	22.2	
170	4.7		202	24.8	L+V
180	7.3		205	27.3	
190	11.3		207	29.7	
196	14.7				
	sat.sol. (L_2)				
101.2	4.5	C+L+V	188.2	24.8	
111	6.9		192.1	21.1	
131	13.3		194.2	19.0	
140	16.9		195	18.2	
151	22.1		196	16.9	
154	23.4		197	16.1	
162	26.5		198	16.1	
167.1	28.1		198.5	16.8	
170	28.5		198.8	17.6	
173	29.0		199	19.4	
177.2	29.0		203	22.9	L+V
180.3	28.6		206	25.3	
184.2	27.5		208	27.5	
	sat.sol.(L_1)				
100	100.7	C+V	185	125	
120	106.3		189.5	126.4	
135	110.6		198.7	103.5	C+L+V
145	113.6		199	69.7	
160	117.8		202	71.8	
170	120.7		206	76.3	
178	123.0		210.7	82.8	

Lecat, 1949

%	b.t.
0	-84
72.5	+244.8 Az
100	184.35

Leopold, 1909

mol%	f.t.	mol%	f.t.
100	-6.8	55.5	+186.2
98.0	-7.3	53.0	192.2
95.3	+24.2	51.0	197.5
90.9	49.9	50.5	198.6
83.3	99.8	50.0	199.2
76.8	124.4	49.8	199.0 (1+1)
71.4	141.5	49.7	198.7
66.7	154.0	19.6	+11
65.0	158.0	12.0	-28
62.5	164.6	5.3	-62
58.8	+174.4	0.0	-112.5

Hydrochloric acid (HCl) + Methyl alcohol (CH_4O)

solubility

Gerrard and Macklen, 1956

mol%	t	mol%	t
60.78	34.2	54.49	12.4
58.82	27.6	53.10	7.2
56.02	18.7	51.73	2.1

Maass and Mc Intosh, 1913

%	f.t.	%	f.t.
0.0	-112.0	42.2	-68.0
4.6	-114.0	46.7	-63.0
8.8	-116.0	51.7	-66.0
34.1	-105.0	57.1	-78.0
35.0	-85.0	93.9	-101.0
38.0	-76.0	100.0	-95.0 (1+1)

Baume and Pamfil, 1914

mol%	f.t.	mol%	f.t.
0	-111.9	51.5	-65.4
17.5	-113.9	75.9	-72.3
24.2	-108.2	81.0	-81.8
31.6	-97.8	88.9	-109.9
38.5	-78.6	100.0	-96.3
45.9	-66.8		
51.3	-66.5		(1+1)

Schreiner, 1928

M*	d	M	d
	18°		
0.507	0.81039	4.977	0.91535
1.022	.82576	5.983	.93320
2.027	.85254	7.077	.95031
3.016	.87576		
4.007	.89660		

* molality of HCl

Gladstone and Hibbert, 1897

%	molar refraction (HCl)		
	Hα	D	Hβ
		18°	
59.2	13.14	13.26	13.53
66.1	13.33	13.49	13.80
81.3	13.78	13.95	14.39
90.03	14.13	14.32	14.56

Schreiner, 1928

M*	n C	n F	n D
		18°	
0	-	1.33258	1.32871
0.507	1.33431	.33999	.33600
1.022	.34027	.34617	.34200
2.027	.35038	.35666	.35223
3.016	.35879	.36556	.36078
4.007	.36603	.37301	.36811
4.977	.37217	.37942	.37432
5.983	.37761	.38515	.37986
7.077	.38251	.39031	.38487

* molality of HCl

Maass and Mc Intosh, 1913

%	κ	%	κ
	-89°		
1.7	0.67	51.0	24.4
4.0	12.5	54.6	12.2
6.5	46.2	60.0	16.6
10.8	85.1	66.5	8.0
13.6	121.2	71.5	8.0
16.9	137.8	78.1	30.5
21.2	172.5	81.5	49.8
26.2	161.4	83.9	56.1
28.3	149.3	93.0	74.0
31.7	122.1	95.5	63.5
34.5	91.4	97.8	26.9
43.2	51.8		

Archibald, 1912 and 1913

M*	λ(HCl)	M	λ(HCl)
	-89°		
0.030	0.0528	0.947	0.3520
.066	.0405	1.16	0.511
.074	.0395	1.54	0.832
.120	.0420	1.44 sic	1.190
.227	.0528	2.64	.498
.344	.0721	3.66	.622
.442	.0981	4.98	.587
.622	.1558	6.41	.457
.757	.2282	7.69	.199

*M = moles CH_4O in 1000cc HCl

M	τ(λ) in %
-89° to -86°	
0.343	1.21
0.943	2.68

Hydrochloric acid (HCl) + Ethyl alcohol (C_2H_6O)

Maass and Mc Intosh, 1913

%	f.t.	%	f.t.
0.0	-112.0	44.7	-87.0
3.1	116.0	46.9	82.0
14.6	124.0	49.7	73.5
17.4	123.0	51.1	71.0
20.7	120.5	54.3	68.0
23.8	118.0	57.4	65.0
27.9	113.0	60.0	66.0
29.8	108.0	63.8	72.5
33.1	100.0	95.0	125.0
37.1	94.5	100.0	-112.0
42.9	-91.0		

(1+1)

Gerrard and Macklen, 1956

mol%	t solubility
59.31	40.1
57.73	34.0
55.06	24.4
52.78	15.6
49.48	3.0

Perkin, 1894

%	d 4°	d 8°
59.96	0.9897	0.9862

Schreiner, 1928

M*	d	n C	n D	n F
		18° 1st series		
0	-	1.35980	1.36150	1.36582
0.518	0.80706	.36590	.36769	.37217
1.022	.82070	.37075	.37265	.37728
2.024	.84573	.37915	.38118	.38610
3.089	.86879	.38635	.38846	.39353
4.115	.88892	.39211	.39431	.39957
5.049	.90605	.39650	.39877	.40418
		2nd series		
0	.-	1.36009	1.36186	1.36615
0.510	0.80688	.36610	.36796	.37238
1.019	.82075	.37107	.37299	.37756
2.028	.84573	.37958	.38159	.38647
3.034	.86785	.38649	.38861	.39363
4.089	.88909	.39270	.39489	.40014
4.872	.90342	.39627	.39855	.40389
5.927	.92150	.40013	.40250	.40799
7.156	.93858	.40321	.40557	.41126

* M = moles HCl in 1 liter solution.

Gladstone and Hibbert, 1897

%	molar refraction (HCl) H_α	D	H_β
		18°	
61.0	12.85	12.97	13.18
67.6	13.04	13.25	13.41
75.0	13.38	13.66	13.77
87.6	13.88	14.07	14.25
62.2	12.85	12.92	13.23
67.1	13.04	13.10	13.41
77.73	13.44	13.51	13.81
86.76	13.63	13.72	14.03

Perkin, 1894

%	(α)magn.
7.75°	
59.96	1.2991

Archibald, 1912 and 1913

M	λ(HCl)	M	λ(HCl)
	-89°		
0.020	0.0191	1.40	0.267
.042	.0182	1.69	.361
.082	.0185	1.97	.505
.134	.0200	2.36	.645
.215	.0216	3.01	.799
.286	.0268	3.80	.902
.388	.0305	5.78	1.155
.518	.0378	6.41	1.045
.676	.0491	7.63	0.878
.885	.0798	8.33	0.803
1.140	.1405		

M	τ (λ) in %
-88.5° to -85.0°	
0.682	3.9
1.690	4.0

M = moles alcohol in 1 liter HCl .

Maass and Mc Intosh, 1913

%	κ	%	κ	%	κ
		-89°			
2.7	0.14	35.5	53.2	80.0	4.62
7.6	5.53	40.1	43.2	84.6	5.78
10.3	19.2	47.5	28.3	87.0	9.60
14.6	34.5	53.6	19.1	89.9	9.60
18.8	47.7	57.5	18.8	92.2	9.51
21.6	58.4	61.5	13.9	93.7	2.15
26.4	74.7	70.7	9.21	98.6	0.86
30.9	67.6	74.8	3.51	99.3	0.41

Hydrochloric acid (HCl) + Propyl alcohol (C_3H_8O)

Gerrard and Macklen, 1956

mol%	t.	mol%	t.
59.59	42.0	51.79	12.4
57.47	34.2	50.78	8.5
55.22	25.6	49.31	2.5

Hydrochloric acid(HCl) + iso-Propyl alcohol (C_3H_8O)

Gerrard and Macklen, 1956

mol%	t.
57.33	43.3
54.82	33.3
53.56	27.3
50.76	16.6
48.63	7.4

Hydrochloric acid (HCl) + Butyl alcohol ($C_4H_{10}O$)

Gerrard and Macklen, 1956

mol%	t.	mol%	t.
60.24	45.0	51.94	13.7
57.73	35.8	50.59	8.0
54.73	25.0	49.43	4.0
53.28	17.9		

Willard and Smith, 1923

mol%	d	mol%	d
	25°		
100	0.8060	89	0.8685
99	.8130	88	.8730
98	.8195	87	.8770
97	.8255	86	.8810
96	.8315	85	.8855
95	.8370	84	.8895
94	.8425	83	.8935
93	.8485	82	.8960
92	.8540	81	.9010
91	.8590	80	.9050
90	.8635		

Hydrochloric acid (HCl) + iso-Butyl alcohol ($C_4H_{10}O$)

Gerrard and Macklen, 1956

mol%	t.	mol%	t.
60.20	46.4	52.02	14.9
56.61	33.3	51.37	12.4
54.35	24.3	49.80	5.9
53.30	19.1		

Hydrochloric acid (HCl) + sec.Butyl alcohol ($C_4H_{10}O$)

Gerrard and Macklen, 1956

mol%	t.	mol%	t.
55.77	39.8	50.69	18.3
53.67	30.9	48.80	10.2
52.37	25.5	48.39	8.1

Hydrochloric acid (HCl) + Amyl alcohol ($C_5H_{12}O$)

Gladstone and Hibbert, 1897

%	molar refraction (HCl) H_α	D	H_β
		18°	
22.79	12.71	12.88	13.10
18.33	12.91	13.07	13.31
10.55	13.41	13.55	13.83
7.36	13.47	13.48	13.82

Archibald, 1912 and 1913

M	λ (HCl)	M	λ (HCl)	M	λ (HCl)
			-89°		
0.034	0.0238	0.654	0.0359	2.98	0.442
0.090	.0151	0.791	.0638	3.68	.470
0.197	.0178	1.059	.0755	4.623	.445
0.312	.0219	1.37	.1262	6.193	.332
0.448	.0244	1.74	.2290	7.505	.1173

M*	τ (λ) in %
-89 to -85°	
0.197	523
1.740	650

M = moles alcohol in 1 liter HCl .

Hydrochloric acid (HCl) + iso-Amyl alcohol ($C_5H_{12}O$)

Perkin, 1894

%	d 4°	8°
71.97	0.9356	0.9325
74.55	0.9281	0.9242

%	t	$(\alpha)_D^{magn.}$
71.97	7.5	1.2403
74.55	8.8	1.2189

Hydrochloric acid (HCl) + 3-Pentanol ($C_5H_{12}O$)

Gerrard and Macklen, 1956

mol%	t.
54.68	43.4
53.96	33.0
53.25	29.9
50.53	18.0
48.01	7.2

Hydrochloric acid (HCl) + 2-Methylbutanol ($C_5H_{12}O$)

Gerrard and Macklen, 1956

mol%	t.	mol%	t.
57.60	45.2	51.33	18.4
54.68	39.8	49.90	11.8
54.23	30.4	48.35	4.7
52.66	23.7		

Hydrochloric acid (HCl) + 4-Heptanol ($C_7H_{16}O$)

Gerrard and Macklen, 1956

mol %	t	mol %	t
57.13	45.3	49.50	13.5
54.05	33.0	48.66	9.9
51.28	21.3		

Hydrochloric acid (HCl) + Capryl alcohol($C_8H_{18}O$)

Gerrard and Macklen, 1956

mol%	t.	mol%	t.
60.20	46.6	52.30	16.5
57.83	38.0	51.30	12.5
55.95	30.9	49.48	5.3
54.75	26.0		

Gladstone and Hibbert, 1897

%	molar refraction (HCl) H_α	D	H_β
		18°	
81.70	11.72	11.82	12.02
85.64	12.16	12.28	12.45
90.80	12.40	12.60	12.78

Hydrochloric acid (HCl) + 3:3:5-Trimethyl-n-hexanol ($C_9H_{20}O$)

Gerrard and Macklen, 1956

mol%	t.
58.33	40.5
56.84	35.1
54.95	27.4
52.30	17.3
49.77	6.9

Hydrochloric acid (HCl) + Glycol ($C_2H_6O_2$)

O'Brien, Kenny and Zuercher, 1939

m*	P_1	m	P_1
	25.00°		
1.33	0.0008	3.13	0.0079
2.27	.0025	4.66	.0357
2.45	.0032	6.57	.135
2.72	.0046	6.63	.139
3.02	.0074	6.92	.172
3.07	.0075	8.78	.424
3.11	.0086		

m* : molality of HCl

Hydrochloric acid (HCl) + Benzyl alcohol(C_7H_8O)

Gerrard and Macklen, 1956

mol%	t.	mol%	t.
65.57	43.7	58.14	19.9
62.62	34.6	55.77	12.1
60.35	27.4	53.61	5.5

Hydrochloric acid (HCl) + 3-Phenylpropanol ($C_9H_{12}O$)

Gerrard and Macklen, 1956

mol%	t.	mol%	t.
62.54	44.6	55.53	20.4
60.28	37.1	53.76	13.4
58.33	30.1	52.03	7.0
57.47	27.4		

Hydrochloric acid (HCl) + Phenethyl alcohol ($C_8H_{10}O$)

Gerrard and Macklen, 1956

mol%	t.	mol%	t.
63.89	42.7	57.42	19.2
62.19	36.2	55.68	13.9
59.31	26.1	53.52	5.2

Hydrochloric acid (HCl) + Resorcinol ($C_6H_6O_2$)

Archibald, 1912 and 1913

M*	λ (HCl)	M	λ (HCl)
	-89°		
0.0791	2.930	0.818	4.270
.159	3.430	1.144	3.870
.244	3.770	.469	3.610
.457	4.110	.855	3.040

M*	τ (λ) in %
	-85° to -89°
0.0730	-1.33
0.159	0.00
1.855	+13.00

* moles resorcinol in 1 liter HCl

Hydrochloric acid (HCl) + Acetic acid ($C_2H_4O_2$)

Gerrard and Macklen, 1956

mol%	t.
96.61	50.1
93.11	39.5
89.20	27.0
85.83	16.0
84.10	11.0

Hydrochloric acid (HCl) + Propionic acid ($C_3H_6O_2$)

Baume and Georgitses, 1912 and 1914

mol%	f.t.	mol%	f.t.
100.0	-16.5	33.0	-64.8
89.9	27.5	30.0	69.2
89.5	27.5	28.0	71.7
83.1	30.7	27.2	74.1
74.4	35.8	25.1	76.6
72.2	38.6	23.9	75.9
66.5	43.0	23.1	80.3
64.1	43.7	21.5	83.4
60.8	46.1	21.2	83.0
60.6	49.0	18.8	86.1
58.2	49.0	15.1	93.9
46.5	51.8 ?	13.8	96.0
45.4	45.0	12.5	98.4
43.2	54.7	11.6	101.3
38.4	53.5	6.7	111.0
37.8	54.2	5.6	110.6
37.0	57.4	5.2	113.2
36.9	54.5	4.2	112.8
33.7	60.5	0.0	-111.0
33.7	-61.6	two series	

Hydrobromic acid (HBr) + Acetylene (C_2H_2)

Maass and Russell, 1918

%	f.t.	%	f.t.
100	-81.8	25.5	-113.1
80.6	82.5	24.0	115.2
70.0	85.7	22.0	117.6
60.2	88.2	16.6	125.2
50.1	93.2	15.7	126.0
44.0	97.3	12.5	120.2
38.1	101.3	10.1	115.0
36.0	103.7	0.0	-86.0
30.1	-109.6		

Hydrobromic acid (HBr) + Allylene (C_3H_4)

Maass and Russell, 1921

%	f.t.	%	f.t.	
100	-105.0	32.0	-125.8	(1+1)
69.4	112.3	29.5	127.6	
54.7	121.5	26.1	128.8	
45.8	129.6	18.5	134.0	
45.7	129.5	15.0	137.7	
42.4	129.1	9.7	120.5	
39.2	127.2	4.5	101.6	
35.4	126.1	0.0	-86.0	
33.7	-127.0			

Hydrobromic acid (HBr) + Methylcyclohexane (C_7H_{14})

Maass, Boomer and Morrison, 1923

mol%	f.t.	mol%	f.t.
0.0	-86.0	28.8	-101.9
2.0	87.9	32.6	103.4
4.0	89.9	37.5	105.3
6.0	91.4	40.8	106.6
7.9	92.5	43.4	107.6
10.1	93.9	49.9	110.0
13.0	95.0	54.2	111.8
15.6	96.3	59.7	113.8
19.6	97.8	100.0	-124.5
25.2	-100.4		

Hydrobromic acid (HBr) + Benzene (C_6H_6)

Maass and Russell, 1918

%	f.t.	%	f.t.
100	+5.4	48.0	-42.0
94.1	+1.3	42.9	47.0
87.1	-3.5	34.8	56.5
85.5	-4.0	26.5	65.0
72.95	-12.5	22.2	70.5
66.4	-20.5	14.3	79.5
61.8	-26.5	11.03	87.5
58.0	-31.0	7.04	95.0
53.4	-39.0	3.87	90.0
51.18	-40.0	0.0	-86.0

Hydrobromic acid (HBr) + Toluene (C_7H_8)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.	
0.0	-86.0	48.9	-98.0	
3.3	96.0	52.7	94.0	
6.5	101.5	55.1	92.0	
9.4	107.5	59.1	90.5	
12.4	116.0	63.1	88.5	
15.3	122.0	65.9	87.0	(1+1)
19.1	128.0	70.2	87.0	
20.7	130.0	73.5	88.5	
25.4	128.0	77.4	89.5	
27.8	124.0	81.0	94.0	
35.3	115.0	83.7	95.0	
37.0	112.5	88.8	100.0	
40.2	107.5	95.1	98.0	
43.3	-103.5	100.0	-94.0	

Maass and Russell, 1918

%	f.t.	%	f.t.	
0.0	-86.0	60.1	-89.0	
4.9	91.6	65.2	88.0	
7.3	95.8	70.5	87.6	(1+1)
9.8	101.5	73.2	88.3	
56.3	-90.6	76.4	89.0	
		93.3	-96.6	

Hydrobromic acid (HBr) + Ethylbenzene (C_8H_{10})

Maass and Russell, 1918

%	f.t.		%	f.t.
100	-92.4		47.6	-108.8
91.06	97.7		41.1	112.2
80.6	103.6		34.6	116.7
76.7	-	(-118.5)*	29.9	120.5
73.7	104.0	(-115.2)	24.8	125.2
71.4	104.0	(-112.6)	20.3	125.0
66.2	110.2		14.8	105.8
63.8	109.0		9.8	96.5
60.0	106.0		4.9	90.8
54.3	106.3		0.0	-86.0

(1+1) f.t. = -105.5

(1+2) f.t. = -103.8

*metastable

Hydrobromic acid (HBr) + Propylbenzene (C_9H_{12})

Maass, Boomer and Morrison, 1923

mol%	f.t.	mol%	f.t.	
0.0	-86.0	35.3	-109.3	
2.1	88.3	38.1	107.4	
4.5	92.6	41.6	106.1	
8.0	97.9	46.2	105.2	
12.0	107.8	50.1	105.4	(1+1)
15.8	119.1	54.3	105.9	
19.4	119.4	58.5	106.5	
23.2	116.8	62.6	110.3	
25.2	115.4	65.5	113.4	
27.9	114.4	100.0	-145.0	
31.5	113.5			

Hydrobromic acid (HBr) + o-Xylene (C_8H_{10})

Maass, Boomer and Morrison, 1923

mol%	f.t.	mol%	f.t.
0.0	-86.0	52.3	-65.5
3.1	92.0	55.3	64.5
6.6	96.5	58.3	61.5
12.1	111.0	62.2	57.5
14.9	114.0	65.2	56.0
19.0	107.0	69.5	52.5
25.3	96.5	73.8	48.5
28.1	91.0	79.0	47.5
30.8	89.1	83.7	45.5
34.7	85.7	87.3	44.0
38.0	83.6	91.4	42.0
42.7	76.2	95.8	40.0
46.0	74.5	100.0	-38.5
49.3	-68.5		

Hydrobromic acid (HBr) + m-Xylene (C_8H_{10})

Maass, Boomer and Morrison, 1923

mol%	f.t.	mol%	f.t.
0.0	-86.0	51.8	-75.5
13.1	111.1	53.1	73.5
24.8	88.6	54.8	72.7
27.6	86.9	58.0	68.8
35.6	83.7	63.8	65.0
39.9	80.0	66.7	63.2
41.8	79.0	71.0	60.9
43.5	78.2	75.5	58.4
44.8	77.7	81.4	56.4
48.1	77.5	86.9	54.9
49.3	-77.6	100.0	-54.0

Hydrobromic acid (HBr) + p-Xylene (C_8H_{10})

Maass, Boomer and Morrison, 1923

mol%	f.t.	mol%	f.t.
0.0	-86.0	48.2	-20.8
4.5	93.5	52.0	15.9
7.0	97.1	54.7	13.8
10.6	101.4	56.9	10.8
20.3	76.8	69.5	-1.5
25.5	62.1	82.0	+5.7
31.1	48.6	86.5	9.4
34.8	41.1	92.3	11.5
43.5	-26.0	100.0	15.0

Hydrobromic acid (HBr) + Mesitylene (C_9H_{12})

Maass and Russell, 1928

%	f.t.		%	f.t.
100	-53.5		49.8	-62.2
97.3	56.5		48.3	62.5
95.5	57.5		44.1	67.5
88.4	65.5		42.1	68.4
81.5	68.5		31.8	82.0
74.4	66.5		27.3	90.0
69.7	64.5		22.05	103.5
65.0	63.0		15.35	105.0
59.7	61.5	(1+1)	8.2	98.5
58.5	61.7		0.0	-86.0
51.2	-61.7			

Hydrobromic acid (HBr) + Chloroform ($CHCl_3$)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
0.0	-86.0	53.7	-92.0
5.9	95.0	61.1	87.0
10.9	101.0	73.4	78.0
17.2	106.0	83.7	71.0
38.6	105.0	85.0	69.5
41.3	101.5	91.4	67.0
46.0	-97.5	100.0	-62.5

Hydrobromic acid (HBr) + Methyl ether (C_2H_6O)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
0.0	-86.0	43.7	-14.9
1.3	86.8	47.2	-16.6
3.0	88.0	49.6	-18.4
6.1	90.2	50.6	-18.7
13.6	93.3	51.6	-19.7
15.2	95.2	74.6	-26.3
23.0	74.3	76.9	-32.5
23.6	64.7	78.6	-33.8
26.2	42.0	81.0	-35.5
26.8	30.4	82.8	-37.2
27.7	26.3	86.5	-46.3
30.0	21.1	87.3	-48.2
31.6	18.0	92.0	-61.0
34.1	14.4	93.1	-66.2
35.7	12.3	94.3	-75.0
37.6	13.0	95.0	-77.3
39.4	13.5	97.0	-99.8
42.2	14.3	100.0	-138.0

(1+1) f.t.= -13°

Hydrobromic acid (HBr) + Ether ($C_4H_{10}O$)

Mc Intosh, 1912

%	f.t.	%	f.t.
100	-118	58.7	-43
98.40	98	47.5	40
97.82	92	31.3	46
97.00	79	24.2	64
91.80	69	20.2	78
90.20	65	16.5	94
88.5	61	14.3	100
86.5	58.5	6.0	98
84.6	54	4.5	95
80.6	50.5	2.0	91
76.6	46	0.0	-86
70.1	-44		

(1+1)

Russel and Sullivan, 1926

mol%	d	mol%	d
	25°		
91.15	0.7946	38.60	1.444
84.20	.8532	31.17	.570
77.77	.9057	24.79	.668
76.25	.9220	17.12	.794
75.46	.9287	14.06	.835
55.35	1.118	10.61	.875
52.11	1.127	0.00	.937
48.77	1.277		

Hydrobromic acid (HBr) + Acetone (C_3H_6O)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
0.0	-86.0	56.4	-14
1.3	86.8	59.7	14
5.0	90.5	61.8	16
8.7	94.0	64.9	24.2
27.0	30.6	66.9	26.6
28.2	19.3	68.7	31.4
30.0	11.7	70.4	36
33.2	6.0	72.0	41.2
35.4	3.2	74.9	50.5
39.6	3.0	77.2	57.0
43.7	4.1	78.6	-61.0
52.9	-5.8		
			(1+1)

Hydrobromic acid (HBr) + Ethyl acetate ($C_4H_8O_2$)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
0.0	-86.0	31.8	-51.5
4.0	89.0	34.0	53.0
6.0	92.0	34.7	57.0
8.2	97.0	36.0	59.0
16.3	85.2	37.0	56.0
17.5	71.3	39.3	51.0
17.6	69.2	41.3	45.0
18.6	69.2	43.8	41.0
19.2	67.1	44.8	39.0
20.2	63.0	47.0	37.0
20.9	61.0	48.9	36.1
21.2	59.3	51.3	36.0
22.2	56.5	54.1	36.3
22.8	56.0	56.7	37.0
23.0	68.1	59.7	38.0
24.1	63.0	64.1	41.0
24.3	64.0	69.6	44.0
25.7	59.0	71.9	46.0
25.9	58.3	74.8	49.0
27.3	54.0	79.3	51.0
27.6	54.0	84.4	54.5
28.8	52.5	88.9	58.0
30.4	52.0	94.6	69.1
31.7	-52.0	100.0	-83.0

(4+1) f.t. = -57°

(5+2) f.t. = -52°

(1+1) f.t. = -36°

Hydrobromic acid (HBr) + Methyl alcohol (CH_4O)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
0.0	-86.0	25.0	-13.5
1.6	87.5	28.7	12.8
4.7	94.0	35.0	33.9
5.7	97.0	35.6	44.4
10.8	85.0	42.8	54.5
12.1	72.4	45.5	-64.0
14.0	-58.0		

(1+1) f.t. = -12°

Archibald, 1907 and 1913

M	λ (HBr)	M	λ (HBr)
		-80°	
0.13	0.615	1.50	77.2
.20	0.685	1.80	134.0
.30	0.820	2.00	211.0
.50	1.660	2.40	335.2
.60	2.385	2.80	458
.80	4.71	3.50	573
1.00	9.25	4.00	631
.20	26.82	5.00	686
.30	37.80	5.70	695
.40	54.80	8.00	600

M	τ (λ) in %
-80° to -75°	
5.88	2.5
8.00	4.2

Hydrobromic acid (HBr) + Ethyl alcohol (C_2H_6O)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
100.0	-86.0	67.6	-31.4
97.9	88.0	66.2	30.3
95.4	91.5	64.6	29.6
93.3	95.5	64.0	28.5
92.3	97.0	62.3	29.5
78.9	83.5	60.2	31.0
77.8	62.5	60.0	30.0
76.8	56.5	55.3	37.5
75.4	50.1	55.0	40.0
74.1	45.2	53.8	45.0
72.4	40.5	51.3	54.0
70.4	34.8	49.2	68.1
68.8	-33.3	48.9	-73.4

(1+1) f.t.= -30°

Hydrobromic acid (HBr) + Amyl alcohol ($C_5H_{12}O$)

Archibald, 1907

M	λ (HBr)	M	λ (HBr)
	-80°		
0.05	0.1950	1.20	1.098
.08	.1680	.30	1.452
.10	.1545	.40	1.898
.20	.1375	.60	2.511
.30	.1418	.80	6.220
.50	.1910	2.00	11.780
.60	.2451	.40	35.400
.80	.3880	.80	67.800
1.00	.6110		

Hydrobromic acid (HBr) + Allyl alcohol (C_3H_6O)

Archibald, 1907 and 1913

M	λ (HBr)	M	λ (HBr)
	-80°		
0.06	0.780	1.20	24.54
.08	.755	.30	29.90
.10	.725	.40	45.50
.20	.655	.60	60.50
.30	.815	.80	115.50
.50	1.665	2.00	185.80
.60	2.385	.40	270.00
.80	4.510	.80	387.00
1.00	9.150		

M	τ (λ) in %
-80° to -73.2°	
5.92	3.0

Hydrobromic acid (HBr) + Resorcinol ($C_6H_6O_2$)

Archibald, 1907 and 1913

M	λ (HBr)	M	λ (HBr)
	-80°		
0.008	19.81	0.10	76.6
.010	26.82	.13	90.0
.015	33.14	.20	127.3
.020	38.66	.30	184.7
.025	40.80	.50	252.2
.030	43.40	.60	275.3
.040	46.50	1.00	351.0
.050	49.30	.20	388.0
.060	55.80	.50	458.0
.080	64.40		

Hydrobromic acid (HBr) + o-Cresol (C_7H_8O)

Archibald, 1907 and 1913

M	λ (HBr)	M	λ (HBr)
	-80°		
0.10	1.995	0.80	49.5
.13	2.450	1.00	87.7
.20	4.530	.20	129.4
.30	5.950	.30	150.8
.50	17.150	.50	195.1
.60	28.250		

M	τ (λ) in %
-80° to -75.5°	
-1.527	-2.8

Hydrobromic acid (HBr) + Acetic acid ($C_2H_4O_2$)

Chichibabin, 1906

(1+2) f.t. = 7-8°

Archibald, 1907 and 1913

M	λ (HBr)	M	λ (HBr)
	-80°		
0.08	5.68	0.60	171.0
.10	6.80	.70	215.0
.15	11.21	.80	252.0
.20	18.4	1.00	332.0
.25	29.8	.20	408
.30	44.8	.40	465
.35	62.5	.50	491
.40	81.4	.60	511
.45	103.0	.70	518
.50	123.5	.80	524

M	τ(λ) in %
-80° to -73°	
0.233	2.62
1.750	2.72

Hydroiodic acid (HI) + Methyl ether (C_2H_6O)

Maass and Mc Intosh, 1912

%	f.t.	%	f.t.
100.0	-50.9	76.4	-30.8
98.8	53.4	76.2	26.3
96.0	64.1	70.1	22.0
88.3	77.0	51.8	25.0
84.1	47.5	28.2	35.0
79.8	40.7	25.5	28.5
78.1	-35.7	15.3	-56.0

(1+1) f.t. = -22°

Hydroiodic acid (HI) + Aniline (C_6H_7N)

Sakhanov, 1913

% (1+1)	d	η
	25°	
0.	1.018	3640
2.04	.027	3970
4.21	.039	4500
9.04	.063	5620
14.05	.089	7400
18.00	.110	8800
20.48	.125	10280

M (1+1)	λ	M (1+1)	λ
	25°		
1.13	3.07	0.192	1.74
1.09	3.19	0.0949	0.82
0.752	3.46	0.0356	0.50
0.408	2.91		

Heavy water (D_2O) + Methyl acetate ($C_3H_6O_2$)

Rabinovich, Fedorov and al., 1955 (fig.)

t	mol%		t	mol%	
	L_1	L_2		L_1	L_2
0	5	83	80	6.5	57
20	5	78	100	9.5	45
40	5	73	114	24.0	24.0
60	5	65			

Heavy water (D_2O) + α -Picoline (C_6H_7N)

Poppe, 1935

P Kg	C.S.T.inf.	P Kg	C.S.T.sup.
5.75	92.25	31.25	110.80
21.0	93.40	46.50	109.60
46.50	95.50	71.75	106.65
71.75	98.60	81.75	105.05
81.75	100.0	86.75	103.30
86.95	101.0		

Heavy water (D_2O) + β -Picoline (C_6H_7N)

Cox, 1952 (fig.)

%	C.S.T.		%	C.S.T.	
	inf.	sup.		inf.	sup.
46	83	83	70	39	117
50	58	106	75	39	116
55	48	114	80	38	112
60	42	118	85	45	102
65	40	118	88	65	65

Heavy water (D_2O) + Ethyl deuteroalcohol (C_2H_5DO)

Rabinovich, Fedorov and al., 1955 (fig.)

t	mol%		t	mol%	
	L_1	L_2		L_1	L_2
2	1	-	80	1	44
20	1	-	100	2.5	37
40	1	53	120	3	29
60	1	50	131.1	12	12

Heavy water (D_2O) + o-Deuterophenol (C_6H_5DO)

Rabinovich, Federov and al., 1955 (fig.)

t	mol% L1	mol% L2	t	mol% L1	mol% L2
20	1	37	60	2	26.5
40	1	32	70	3	22
50	1	30	79	8	8

Heavy water (D_2O) + Butyric acid ($C_4H_8O_2$)

Patterson, 1938

%	sat.t.
23.44	21.80
38.03	21.28
51.10	17.20

Heavy water (D_2O) + Isobutyric deuterioacid (C_4H_7DO)

Rabinovich, Fedorov and al., 1955 (fig.)

t	mol% L1	mol% L2	t	mol% L1	mol% L2
-2	4	-	35	7.5	32
+5	4	52	45	9	20
15	5	46	45.5	11	11
25	6	39			

Heavy water (D_2O) + Isobutyric acid ($C_4H_8O_2$)

Patterson, 1938

%	sat.t.	%	sat.t.
52.1	36.40	26.9	41.23
46.6	38.64	26.2	41.05
38.9	40.21	22.3	40.20
34.1	40.81	15.8	29.00
29.9	41.23	15.3	28.80
28.1	41.40		

Hydrogen peroxide (H_2O_2) + Ether ($C_4H_{10}O$)

Maass and Hatcher, 1922

56% sat.t. = 0°

Matheson and Maass, 1929

%	f.t.	%	f.t.
3.5	-1.2	47.8	-6.0
41.6	- (L1+L2)	59.2	-16.5
44.3	-4.8	66.5	-33.1
45.2	-5.1	71.5	-47.6

Mironov, 1955 (fig.)

%	f.t.	%	f.t.	sat.t. inf.	sat.t. sup.
100	-116	39.1	-2	-2	-2
79 E	-130	36	-2	-25	+15
70	-60	22	-2	-	+46
60	-20	10	-2	-	+28
50	-4	3.8	-2	-	-2
40	-2	3.0	-1.5	-20	-
			0	-	-

Hydrogen peroxide (H_2O_2) + Saccharose ($C_{12}H_{22}O_{11}$)

Hatcher, 1922

%	f.t.	%	f.t.
3.88	-1.97	30.34	-5.70
11.64	-2.60	36.82	-7.57
18.66	-3.47	42.86	-10.30
25.16	-4.72	50.00	-14.32

Hydrogen peroxide (H_2O_2) + Ether ($C_4H_{10}O$)

Linton and Maass, 1931

%	d	ε	%	d	ε
			0°		
100	0.736	4.6	73.7	0.892	18.0
94.8	.769	6.7	61.8	.954	26.9
90.0	.791	8.7	53.7	.997	33.8
82.2	.834	13.2	41.8	1.071	44.3

Hydrogen peroxide (H_2O_2) + Butylamine ($C_4H_{11}N$)

Matheson and Maass, 1929

mol%	f.t.	mol%	f.t.
1.29	- 2.7	46.3	-13
4.61	- 9.0	51.4	19
8.37	-14.0	56.0	23
12.5	-29.0	59.5	18
23.0	0	62.7	12
24.0	- 2	65.4	9.5
27.2	-10	69.7	9
30.0	-10	71.4	11
33.6	- 8	73.0	13
39.6	- 9	75.8	16.5
43.5	-11	77.9	-20.5
	(1+2)		(2+1)

Hydrogen peroxide (H_2O_2) + Butylamine tert. ($C_4H_{11}N$)

Matheson and Maass, 1929

mol%	f.t.	mol%	f.t.
1.69	-2	38.7	+16.5
3.82	-5	39.9	+17
5.47	-7.5	49.9	+17
8.40	-15	53.1	+15.4
9.22	-18	55.5	+13.5
12.7	-12	58.5	+10
13.3	-10.5	60.8	+7
16.6	-3	63.0	+8
21.9	+15.5	65.0	+73
24.2	+21	66.6	+55
27.7	+25	69.3	+50
28.2	+24	72.2	+1.5
31.2	+26	74.4	-0.5
34.5	+23	76.4	-50
36.8	+20		
	(1+2)	(1+1)	(1+2)

Hydrogen peroxide (H_2O_2) + Diethylamine ($C_4H_{11}N$)

Matheson and Maass, 1929

mol%	f.t.
3.05	-8.4
11.30	-35.0

Hydrogen peroxide (H_2O_2) + Tripropylamine ($C_9H_{21}N$)

Matheson and Maass, 1929

mol%	f.t.
3.0	-4
9.1	-14.5
12.1	-30

Hydrogen peroxide (H_2O_2) + Dimethylaniline ($C_8H_{11}N$)

Matheson and Maass, 1929

mol%	f.t.
6.35	-2.3
12.17	-30.0

above 12.17mol% - L_1+L_2

Hydrogen peroxide (H_2O_2) + Piperidine ($C_5H_{11}N$)

Matheson and Maass, 1929

mol%	f.t.
5.6	-10.3
11.1	-32.5
12.4	-34.0

Hydrogen peroxide (H_2O_2) + Methyl alcohol (CH_4O)

Matheson and Maass, 1929

mol%	f.t.	mol%	f.t.
5.6	-1.7	28.3	-18.6
13.2	-6.4	33.2	-22.2
18.4	-10.2	43.8	-37.8
25.2	-15.3	51.5	-49.3

Hydrogen sulfide (H_2S) + Methane (CH_4)

Reamer, Sage and Lacey, 1951

Molar volume (cc/mole), 4.4°

P Kg	10	20	30	40	50 mol%
Dew point	(13.6) 1498	(15.7) 1300	(18.2) 1102	(22.0) 882	(27.2) 738
Bubble point	(59.4) 43.63	(94.9) 46.60	(116.1) 50.42	(129.9) 55.42	(136.6)[a] 62.74
14	-	1475	1506	1536	1566
28	-	-	-	-	-
42	-	-	-	-	-
56	-	-	-	-	-
70	43.33	-	-	-	-
88	42.95	-	-	-	-
105.5	42.61	46.02	-	-	-
123	42.31	45.34	49.77	-	-
140.5	42.03	44.83	48.55	53.98	61.79
158	41.81	44.41	47.71	52.35	58.91
176	41.68	44.10	47.17	51.18	56.91
193	41.53	43.89	46.76	50.46	55.44
211	41.40	43.63	46.42	49.91	54.34
246	41.15	43.23	45.77	48.79	52.56
281	40.92	42.68	45.17	47.82	51.17
316	40.69	42.56	44.59	47.01	49.85
352	40.44	42.17	44.09	46.34	48.88
422	39.94	41.55	43.23	45.21	47.35
492	39.50	40.95	42.47	44.13	46.17
563	39.04	40.40	41.80	43.29	45.03
633	38.64	39.85	41.18	42.61	44.13
703	38.30	38.41	40.63	41.97	43.34

* The figures in brackets are dew point or bubble point pressures

a-retrograd dew point pressure

P Kg	molar volume 60	70	80	90 mol%
Dew point	(35.3) 539	(56.6) 326	-	-
Bubble point	(135.9)[a] 76.1	(116.7)[a] 110.7	-	-
14	1582	1594	1604	1614
28	737	755	767	776
42	-	473	487	497
56	-	329	346	358
70	-	-	261	275
88	-	-	192	209
105.5	-	-	149.2	168.3
123	-	102.7	121.2	136.7
140.5	73.3	87.4	102.8	116.7
158	67.9	78.5	90.6	102.8
176	64.2	77.0	82.8	93.0
193	61.64	68.3	78.1	85.7
211	59.71	65.8	72.9	80.2
246	56.79	61.09	66.8	72.4
281	54.64	57.78	62.2	66.6
316	53.02	56.19	58.95	62.6
352	51.71	54.47	57.40	60.57
422	49.57	51.82	54.17	56.64
492	47.96	49.88	51.77	53.86
563	46.67	48.41	49.80	51.82
633	45.60	47.15	48.62	50.18
703	44.71	46.01	47.39	48.75

37.9°

	10	20	30	40	50 mol%
Dew point	(31.8) 632	(37.2) 536	(44.9) 438	(56.5) 344	(73.3) 238
Bubble point	(77.6) 49.47	(108.2) 54.90	(127.5) 62.5	(134.2)[a] 76.2	(121.4)[a] 111.6
14	1711	1731	1752	1773	1790
28	752	782	808	832	850
42	-	-	479	509	533
56	-	-	-	343	372
70	-	-	-	-	270
88	48.77	-	-	-	-
105.5	48.01	-	-	-	-
123	47.46	53.24	-	-	109.3
140.5	47.00	51.84	58.97	72.6	91.6
158	46.62	50.86	56.93	67.2	81.2
176	46.23	50.14	55.48	63.6	74.9
193	45.90	49.55	54.29	61.03	70.0
211	45.58	49.01	53.46	59.08	66.9
246	45.07	48.10	51.93	56.58	62.5
281	44.57	47.26	50.58	54.59	59.39
316	44.13	46.57	49.47	52.93	57.02
352	43.75	46.00	48.60	51.63	55.15
422	42.98	45.17	47.27	49.71	52.40
492	42.30	44.21	46.09	48.21	50.47
563	41.70	43.39	45.07	46.97	48.98
633	41.17	42.69	44.17	45.87	47.73
703	40.72	41.95	43.40	44.86	46.60

P Kg	molar volume 60	70	80	90 mol%
14	1804	1812	1822	1829
28	865	876	885	892
42	551	564	569	581
56	392	407	418	430
70	295	312	324	332
88	218	237	249	259
105.5	167.0	187	200	209
123	134.5	153.4	166.2	175.9
140.5	113.0	130.0	141.7	151.3
158	98.0	113.2	124.0	133.2
176	87.8	100.8	110.7	119.7
193	81.0	91.7	100.7	108.9
211	75.9	85.0	93.3	100.5
246	69.21	76.1	83.0	88.8
281	64.7	70.1	75.4	80.5
316	61.41	65.8	70.3	74.5
352	58.90	62.7	66.5	70.3
422	55.28	58.23	61.36	64.2
492	52.90	55.25	57.75	59.99
563	51.10	53.12	55.06	56.98
633	49.56	51.31	52.93	54.66
703	48.18	49.69	51.25	52.75

71.1°

	10	20	30	40	50 mol%
Dew point	(63.9) 284.1	(76.8) 230.4	-	-	-
Bubble point	(97.6) 57.56	(116.7) 77.1	-	-	-
14	1941	1957	1976	1990	2005
28	904	921	940	856	972
42	543	567	588	607	623
56	355	386	410	432	449
70	-	271	300	325	345
88	-	-	209	240	261
105.5	60.43	-	150.5	181.9	200
123	57.41	75.2	111.5	142.5	164.5
140.5	55.53	68.6	91.3	116.2	136.9
158	54.21	64.2	80.2	99.5	117.4
176	53.18	61.11	73.4	88.7	100.4
193	52.32	58.98	69.0	81.0	94.1
211	51.66	57.48	65.9	75.7	86.8
246	50.49	55.10	61.32	68.5	76.9
281	49.55	53.33	58.23	64.1	70.8
316	48.67	52.04	56.05	60.93	66.5
352	47.98	50.99	54.41	58.59	63.3
422	46.65	49.23	52.03	55.27	58.71
492	45.57	47.78	50.32	52.93	55.72
563	44.71	46.64	48.87	51.11	53.53
633	43.96	45.69	47.52	49.58	51.68
703	43.31	44.90	46.52	48.28	50.07

P Kg	molar volume 60	70	80	90 mol%
14	2026	2033	2040	2044
28	984	995	1001	1007
42	637	647	654	661
56	464	474	481	489
70	362	372	380	392
88	276	287	295	303
105.5	220	231	240	248
123	181.1	193	202	210
140.5	152.9	165.2	175.0	182.5
158	132.4	145.3	153.5	161.1
176	117.3	128.5	137.0	145.7
193	106.1	116.3	124.3	131.6
211	97.5	106.8	114.2	121.1
246	85.4	93.1	99.9	105.3
281	77.6	83.8	89.5	94.5
316	72.1	77.4	82.8	87.2
352	68.2	72.6	78.0	81.1
422	62.4	66.2	69.2	72.2
492	58.65	61.59	64.1	66.6
563	55.94	58.31	60.53	62.5
633	53.78	55.87	57.84	59.54
703	51.95	53.77	55.35	56.97

104.4°

P Kg	molar volume 10	20	30	40	50 mol%
14	2179	2192	2206	2222	2229
28	1034	1048	1063	1079	1088
42	649	664	680	695	708
56	454	476	489	508	517
70	333	353	372	389	402
88	226	254	277	296	311
105.5	144.5	188	213	234	250
123	106.8	145.2	171.4	191	208
140.5	89.3	117.5	141.6	160.8	176.2
158	77.9	100.2	120.2	138.2	152.7
176	70.4	87.8	105.1	121.3	134.8
193	65.5	79.4	94.1	108.4	121.0
211	62.3	73.5	86.2	98.8	110.5
246	59.02	66.8	76.0	86.0	95.4
281	56.61	62.6	69.7	77.4	85.4
316	54.72	59.71	65.5	71.7	78.5
352	53.27	57.65	62.4	67.8	73.4
422	51.24	54.53	58.15	62.26	66.5
492	49.56	52.28	55.23	58.47	61.87
563	48.21	50.54	53.07	55.74	58.56
633	47.15	49.18	51.38	53.69	56.13
703	46.28	48.06	50.03	52.10	54.13

P Kg	molar volume 60	70	80	90 mol%
14	2238	2300	2350	2387
28	1097	1105	1111	1114
42	717	726	730	736
56	527	536	542	547
70	413	422	428	434
88	322	331	338	344
105.5	262	271	278	284
123	220	229	236	242
140.5	189	198	205	211
158	164.7	173.8	181.0	186.5
176	146.4	155.2	162.0	167.7
193	131.8	140.3	147.0	152.7
211	120.5	128.6	134.8	140.3
246	103.5	110.6	116.6	122.0
281	92.5	98.5	103.9	108.7
316	84.6	89.6	94.5	98.7
352	78.5	83.1	87.4	91.3
422	70.5	74.1	77.4	80.5
492	65.2	68.3	70.9	73.3
563	61.52	64.1	66.3	68.3
633	58.40	60.74	63.7	64.4
703	56.28	58.03	59.61	61.33

P Kg	molar volume 60	70	80	90 mol%
14	2449	2454	2457	2459
28	1209	1215	1219	1223
42	796	803	807	811
56	581	596	601	605
70	465	472	477	481
88	366	373	378	383
105.5	301	308	313	318
123	254	261	267	271
140.5	220	227	232	237
158	193	200	206	210
176	172.0	179.1	184.7	189
193	155.3	162.3	167.7	172.5
211	141.8	148.6	153.8	158.7
246	121.8	128.0	133.0	137.4
281	107.8	113.4	118.1	122.5
316	97.4	102.3	106.7	110.8
352	89.8	94.3	98.2	101.8
422	79.3	82.8	86.2	89.2
492	72.2	75.3	78.1	80.6
563	67.2	69.8	72.2	74.3
633	63.5	65.5	67.6	69.7
703	60.99	62.5	64.0	65.9

171.1°

P Kg	molar volume 10	20	30	40	50 mol%
Dew	(63.9)	(76.8)	-	-	-
point	284	227	-	-	-
Bubble	(97.6)	(108.1)	-	-	-
point	55.56	77.2	-	-	-
14	2613	2625	2636	2645	2651
28	1272	1284	1295	1305	1312
42	825	837	847	857	865
56	601	612	623	634	642
70	466	478	489	499	507
88	358	370	381	391	400
105.5	284	298	310	320	328
123	232	246	258	267	276
140.5	194	209	221	231	240
158	164.0	179.6	192	202	211
176	141.5	156.9	168.7	179.0	188
193	124.1	139.1	150.5	160.8	169.6
211	111.2	125.3	136.0	146.1	154.6
246	93.8	105.5	115.5	124.4	132.3
281	82.8	92.7	101.6	109.5	116.4
316	75.8	84.0	91.6	98.6	104.8
352	70.9	77.6	84.2	90.8	96.4
422	64.3	69.4	74.5	79.3	83.9
492	60.12	64.1	68.3	72.3	76.1
563	57.25	60.37	63.7	67.1	70.3
633	55.00	57.62	60.55	63.4	66.1
703	53.13	55.44	58.00	60.56	63.0

137.8°

P Kg	molar volume 10	20	30	40	50 mol%
14	2392	2406	2421	2433	2442
28	1154	1166	1180	1192	1202
42	740	751	764	776	787
56	530	544	557	570	581
70	403	418	432	475	457
88	300	317	333	347	358
105.5	229	247	264	279	291
123	177.2	198	217	233	245
140.5	141.2	163.6	182.9	199	211
158	116.9	139.2	157.7	172.7	184.0
176	100.7	121.5	138.5	152.1	163.3
193	90.1	108.2	123.6	136.2	146.8
211	82.7	98.1	112.0	123.6	133.6
246	73.1	84.2	95.3	105.4	114.0
281	67.3	75.8	84.7	93.3	100.8
316	63.4	70.3	77.5	84.9	91.5
352	60.75	66.6	72.6	78.8	84.5
422	56.81	61.12	65.7	70.4	75.0
492	54.25	57.56	61.30	64.9	68.7
563	53.32	55.06	58.00	61.06	64.1
633	50.57	53.07	55.50	58.25	60.93
703	49.20	51.44	53.69	55.94	58.12

P Kg	mol% V	mol% L	molar volume V	molar volume L
	4.4°			
11.88	0.00	0.00	1705	41.29
14.1	13.71	0.57	1448	41.41
17.6	27.83	1.32	1159	41.57
21.1	38.96	2.12	963	41.75
24.6	46.04	2.84	820	41.92
28.1	51.26	3.54	713	42.08
31.6	55.51	4.24	629	42.24
35.2	58.79	4.93	562	42.39
42.2	63.94	6.36	459	42.73
49.2	67.55	7.83	385	43.14
56.2	69.89	9.30	329	43.45
63.3	71.41	10.83	284	43.67
70.3	72.42	12.50	248	44.31
77.3	72.99	14.33	218	44.84
84.4	73.21	16.35	191	45.46
87.9	73.19	17.50	177.9	45.80
91.4	73.06	18.68	165.9	46.18
98.4	72.62	21.37	147.3	47.07
105.5	71.85	24.50	132.1	48.19
112.5	70.75	27.98	117.7	49.56
119.5	69.31	32.40	105.5	51.52
123.0	68.28	34.92	99.6	52.72
126.5	66.86	37.58	93.1	53.75
133.6	61.30	44.01	78.2	57.83
137.0	55.00	55.00	68.2	68.20
	37.8°			
27.7	0.00	0.00	729	45.66
28.1	1.17	0.07	718	45.69
31.6	9.63	0.67	635	45.85
35.2	16.42	1.28	569	46.04
38.7	22.03	1.90	514	46.27
42.2	26.88	2.55	468	46.47
49.2	34.16	3.85	396	46.94
56.2	39.76	5.23	342	47.46
63.3	43.96	6.70	297	48.05
70.3	47.07	8.28	260	48.71
77.3	49.23	9.96	230	49.46
84.4	50.79	11.82	205	50.33
87.9	51.30	12.82	194	50.81
91.4	51.82	13.90	183.5	51.38
98.4	52.40	16.20	165.8	52.63
105.5	52.55	18.85	144.9	54.20
112.5	51.95	21.92	130.7	56.14
119.5	50.58	25.32	115.5	58.67
123.0	49.47	27.25	107.6	60.23
126.5	47.97	29.40	99.8	62.10
130.0	45.80	31.85	91.2	64.80
133.6	41.90	35.78	80.2	69.00
134.06	38.80	38.80	73.9	73.90

71.1°

54.75	0.00	0.00	331	53.57
56.2	1.96	0.31	323	53.78
59.7	5.92	0.98	304	54.23
63.3	9.46	1.67	287	54.85
70.3	15.53	3.09	256	55.75
77.3	20.21	4.59	228	56.91
84.4	23.67	6.22	201	58.31
87.9	25.34	7.20	186.7	59.17
91.4	26.46	8.14	174.3	60.06
98.4	28.11	10.21	146.5	62.15
105.5	27.75	12.45	121.8	62.15
112.5	25.80	15.47	101.1	68.90
116.0	22.95	18.30	87.3	74.2
116.7	20.90	20.90	81.0	81.0

mol%	P Kg critical state	t	P Kg max. temp. state	t	P Kg max. press. state	t
10	103.5	87.9	96.3	90.5	104.9	85.2
20	115.8	72.5	99.5	80.6	117.4	69.1
30	127.4	54.4	102.4	68.7	128.3	51.7
40	134.7	35.4	103.0	55.8	134.6	32.3
50	137.4	15.0	101.6	41.6	137.4	26.2
60	136.1	-5.6	97.1	25.6	136.4	6.1
70	-	-	89.8	9.4	-	-

Hydrogen sulfide (H_2S) + Ethane (C_2H_6)

Kay and Brice, 1953

mol%	critical t	P Kg	d
0.00	99.92	91.19	0.3465
11.03	87.24	85.56	.3351
28.90	68.32	75.36	.3125
49.99	50.62	64.37	.2792
66.94	40.76	58.42	.2528
77.79	36.39	54.53	.2380
89.01	33.47	51.85	.2256
100.00	31.97	49.72	-

P Kg	t bubble point	t dew point	d L	d V
		11.03 mol%		
17.6	3.65	-	0.7352	-
21.1	11.4	-	.7187	-
24.6	18.7	28.45	-	0.0412
28.1	25.0	33.85	.6888	.0482
31.6	30.65	38.85	-	-
35.2	35.9	43.45	.6604	.0615
38.7	40.65	47.75	-	-
42.2	45.2	51.70	.6336	.0758
45.7	49.5	55.55	-	-
49.2	53.5	59.20	.6074	.0913
52.7	57.95	62.65	-	-
56.2	61.1	65.95	.5799	.1089
59.7	64.55	69.10	-	-
63.3	67.7	72.10	.5515	.1302
66.8	71.0	75.55	-	-
70.3	74.2	77.65	.5190	.1554
73.8	77.1	80.30	-	-
77.3	79.8	82.85	.4746	.1874
80.8	82.4	85.20	-	-
84.4	85.65	87.10	.3949	.2431
		28.90 mol%		
21.1	1.55	-	0.6390	-
24.6	8.30	19.6	-	0.0421
28.1	14.45	24.8	.6098	.0487
31.1	20.05	29.7	-	-
35.2	26.30	34.35	.5749	.0615
38.7	30.00	38.55	-	-
42.2	34.50	42.35	.5541	.0785
45.7	38.55	45.9	-	-
49.2	42.55	49.35	.5254	.0950
52.7	46.40	52.65	-	-
56.2	50.10	55.8	.4950	.1174
59.7	53.60	58.65	-	-
63.3	56.95	61.45	.4602	.1426
66.8	60.05	64.05	-	-
70.3	63.00	66.35	.4030	.1810
73.8	66.50	68.55	-	.2127
		49.99 mol%		
24.6	3.0	-	0.5573	-
28.1	8.9	14.7	.5387	0.0511
31.6	14.3	19.4	-	-
35.2	19.3	23.95	.5042	.0668
38.7	23.85	28.0	-	-
42.2	28.1	31.85	.4719	.0863
45.7	32.1	35.4	-	-
49.2	35.85	38.6	.4405	.1081
52.7	39.35	41.95	-	-
56.2	42.75	45.0	.4005	.1390
59.7	46.1	47.85	.3737	.1602
63.3	49.4	50.4	.3252	.1943
		66.94 mol%		
21.1	-5.75	-3.9	-	-
24.6	+0.65	+2.35	0.4978	0.0458
28.1	4.45	7.9	.4803	.0540
31.6	11.7	12.95	.4615	.0625
35.2	16.35	17.45	.4464	.0718
38.7	20.85	21.85	.4303	.0812
42.2	25.0	25.9	.4139	.0929
45.7	28.95	29.8	.3957	.1065
49.2	32.6	33.35	.3761	.1217
52.7	36.1	36.8	.3502	.1421
56.2	39.35	39.65	.3111	.1762
		77.79 mol%		
21.1	-6.35	-6.1	-	-
24.6	-0.05	+0.2	0.4617	-
28.1	+5.45	5.75	.4456	0.0561
31.6	10.55	10.8	.4293	.0649
35.2	15.3	15.55	.4136	.0737
38.7	19.7	20.0	.3961	.0844
42.2	23.85	24.1	.3790	.0974
45.7	27.8	27.9	.3610	.1126
49.2	31.35	31.45	.3391	.1309
52.7	34.8	34.85	.3023	.1594
		89.01 mol%		
28.1	5.0	5.3	0.4221	0.0562
31.6	10.3	10.4	.4051	.0657
35.2	14.95	15.1	.3863	.0753
38.7	19.4	19.55	.3719	.0865
42.2	23.6	23.65	.3535	.0997
45.7	27.4	27.45	.3312	.1176
49.2	31.0	31.05	.2986	.1426

Next Page

mol %	t bubble point	t dew point	mol %	t bubble point	t dew point
		14.1 Kg/cm²			
0	+10.3	+10.3	60	-20.2	-16.1
10	- 4.1	+ 7.85	70	-21.0	-19.5
20	-11.1	+ 3.8	80	-21.4	-21.0
30	-14.9	- 1.1	90	-21.5	-21.5
40	-17.2	- 6.2	93	-21.7	-21.7 Az
50	-18.8	-11.1	100	-20.6	-20.6
		21.1 Kg/cm²			
0	+26.1	+26.1	60	- 4.9	- 1.0
10	+12.45	+22.6	70	- 5.9	- 4.65
20	+ 5.4	+18.2	80	- 6.4	- 6.1
30	+ 1.15	+13.45	89.6	- 6.45	- 6.45 Az
40	- 1.55	+ 8.55	90	- 6.55	- 6.55
50	- 3.35	+ 3.4	100	- 5.8	- 5.8
		28.1 Kg/cm²			
0	+38.3	+38.3	60	+ 7.4	+10.35
10	25.8	34.3	70	6.1	7.15
20	18.65	29.65	80	5.15	5.4
30	14.0	24.3	87	4.9	4.9 Az
40	11.0	19.3	90	5.0	5.0
50	8.95	14.7	100	6.05	6.05
		35.2 Kg/cm²			
0	+48.7	+48.7	60	+17.35	+19.7
10	36.6	43.95	70	16.0	16.85
20	30.0	39.0	80	15.1	15.35
30	25.35	33.8	84.5	15.0	15.0 Az
40	21.95	28.45	90	15.2	15.2
50	19.25	24.0	100	16.0	16.0
		42.2 Kg/cm²			
0	+57.6	+57.6	60	+26.2	+27.95
10	46.0	52.35	70	24.65	25.3
20	38.8	47.1	80	23.55	23.7
30	33.05	41.8	82.3	23.5	23.5
40	30.65	36.4	90	23.65	23.65
50	28.05	31.8	100	24.45	24.45 Az
		56.2 Kg/cm²			
0	+72.35	+72.35	50	+42.75	+45.0
10	61.9	66.5	60	40.45	41.45
20	54.65	60.75	70	38.9	39.05
30	49.6	55.1	71.7	38.65	38.65 Az
40	45.65	49.8			
		70.3 Kg/cm²			
0	+84.8	+84.8	34	+60.85	+62.95
10	75.0	78.35	36	60.2	61.8
20	68.0	72.05	38	59.8	60.6
30	62.5	65.55	38.7	60.0	60.0 Az
		84.4 Kg/cm²			
0	+95.4	+95.4	8	+87.65	+89.45
2	93.1	94.05	10	86.2	87.85
4	90.85	92.55	12	85.15	86.15
6	89.1	91.0	13.4	84.7	84.7 Az

Hydrogen sulfide (H_2S) + Propane (C_3H_8)

Gilliland and Scheeline, 1940

t	mol % L	mol % V	t	mol % L	mol % V
		27.3 atm.			
67.8	96.3	87.8	53.9	75.9	62.1
65.0	94.6	84.1	51.1	66.8	50.1
		34.0 atm.			
82.2	98.6	97.9	62.8	60.5	45.3
76.7	91.9	87.0			
		40.9 atm.			
93.9	94.5	92.4	78.3	65.8	54.9
91.7	92.2	89.9	70.0	53.5	40.8

Kay and Rambosek, 1953

t	P	d L	d V	P dew p.	P bubble p.	d L	d V
	100%				89.84%		
-1.1	9.90	0.8512	-	-	10.55	-	-
+4.4	11.57	.8374	-	12.04	12.32	0.7809	-
10.0	13.53	.8233	-	14.02	14.29	.7676	-
15.6	15.65	.8086	-	16.08	16.31	.7541	-
21.1	18.04	.7936	-	18.51	18.79	.7401	0.0331
26.7	20.60	.7785	-	21.23	21.50	.7257	.0384
32.2	23.63	.7621	-	24.09	24.30	.7105	.0445
37.8	26.85	.7472	0.0465	27.31	27.45	.6942	.0509
43.3	30.36	.7307	.0532	30.79	30.99	.6776	.0576
48.9	34.23	.7044	.0604	34.71	34.91	.6603	.0656
54.4	38.40	.6966	.0692	38.92	39.12	.6417	.0747
60.0	42.95	.6779	.0795	43.42			
65.6	47.87	.6576	.0897	48.41	43.59	.6215	.0855
71.1	53.17	.6360	.1025	53.76	48.65	.5999	.0982
76.7	58.89	.6119	.1179	59.34	53.93	.5751	.1138
82.2	65.08	.5855	.1374	65.61	59.65	.5482	.1320
87.8	71.75	.5451	.1618	72.34	65.80	.5158	.1570
93.3	78.97	.5126	.1959	78.87	72.48	.4742	.1947
98.9	86.76	.4269	.2723	-	78.87	.3268	.3268
100.0	88.27	.3449	.3473	-	-	-	-

t	P dew point	P bubble point	d L	d V
		78.17%		
4.4	11.66	12.27	0.7224	-
10.0	13.54	14.36	.7104	-
15.6	15.65	16.40	.6978	-
21.1	18.03	18.71	.6844	-
26.7	20.69	21.37	.6703	-
32.2	23.55	24.16	.6543	-
37.8	26.68	27.36	.6375	0.0509
48.9	33.89	34.57	.6023	.0676
60.0	42.47	43.08	.5639	.0891
71.1	52.60	53.01	.5182	.1224
82.2	64.31	64.96	.4479	.1799
87.8	70.78	70.78	.3039	.3039

Previous Page

		67.55%		
4.4	-	12.04	0.6644	-
10.0	-	13.81	.6556	-
15.6	-	15.85	.6446	-
21.1	-	18.17	.6334	-
26.7	19.60	20.76	.6212	-
32.2	22.18	23.57	.6077	-
37.8	25.18	26.61	.5938	0.0504
48.9	32.04	33.61	.5615	.0669
60.0	40.22	41.65	.5225	.0889
71.1	49.95	51.11	.4725	.1222
82.2	61.52	62.20	.3912	.1890
87.8	65.07	65.07	.2851	.2851
		56.41%		
4.4	-	11.46	0.6367	-
10.0	-	13.20	.6247	-
15.6	-	15.17	.6125	-
21.1	-	17.42	.5994	-
26.7	17.22	19.80	.5866	-
32.2	19.73	22.45	.5635	-
37.8	22.59	25.38	.5593	0.0464
48.9	29.06	32.05	.5283	.0617
60.0	36.68	39.67	.4929	.0825
71.1	45.66	48.46	.4453	.1123
82.2	57.06	58.52	.3652	.1832
87.8	60.40	60.40	.2699	.2699
		43.42%		
4.4	-	10.27	0.5933	-
10.0	-	12.58	.5834	-
15.6	-	14.43	.5739	-
21.1	-	16.92	.5643	-
26.7	15.24	18.51	.5536	-
32.2	17.49	20.96	.5421	-
37.8	19.87	23.64	.5294	0.0400
48.9	25.49	29.60	.5015	.0537
60.0	32.30	32.32	.4684	.0729
71.1	40.59	36.57	.4285	.1006
82.2	50.90	44.44	.3564	.1550
87.8	55.92	55.92	.2557	.2557
		29.86%		
4.4	-	9.80	0.5714	-
10.0	-	11.26	.5620	-
15.6	-	12.86	.5516	-
21.1	-	14.63	.5414	-
26.7	-	16.60	.5312	-
32.2	15.10	18.78	.5206	-
37.8	17.18	21.06	.5094	0.0354
48.9	21.91	26.34	.4841	.0481
60.0	27.97	32.60	.4566	.0641
71.1	35.32	39.61	.4187	.0875
82.2	44.30	47.64	.3606	.1285
96.7	51.69	51.69	.2459	.2459
		16.33%		
4.4	-	8.20	0.5520	-
10.0	-	9.53	.5430	-
15.6	-	10.89	.5340	-
21.1	-	12.39	.5244	-
26.7	11.39	14.02	.5151	-
32.2	13.07	15.86	.5053	-
37.8	14.83	17.83	.4949	0.0327
48.9	19.22	22.39	.4711	.0433
60.0	24.30	27.70	.4461	.0577
71.1	30.42	33.82	.4121	.0762
82.2	37.98	40.97	.3662	.1080
96.7	47.30	47.30	.2363	.2363

t	P	t	P
	0%		
4.4	5.42	60.0	20.93
15.6	7.38	71.1	26.17
26.7	9.84	82.2	32.31
37.8	12.86	93.3	34.50
48.9	16.53	96.7	41.94

Hydrogen sulfide (H_2S) + Pentane (C_5H_{12})

Reamer, Sage and Lacey, 1953

mol% L	mol% V	P	molar volume L	molar volume V
		4.4°		
100	100	0.30	112.3	75660
93.83	21.58	1.4	108.5	16420
85.75	10.50	2.7	103.3	8115
77.40	6.96	4.1	97.6	5310
67.68	4.66	5.4	91.0	3870
56.28	3.15	6.8	83.4	3050
38.94	1.80	8.5	71.0	2370
17.90	0.70	10.2	55.6	1940
0.00	0.00	11.5	41.3	1740
		37.8°		
100	100	1.07	118.8	26200
92.12	33.16	3.4	113.5	7980
80.49	16.90	6.8	105.7	3500
68.49	10.30	10.2	97.4	2250
56.20	7.20	13.6	88.8	1670
43.38	5.09	17.0	79.5	1300
29.20	3.25	20.4	69.0	1050
14.00	1.50	23.8	57.2	860
0.00	0.00	26.8	45.6	691
		71°		
100	100	2.82	126.7	8900
92.01	48.76	6.8	121.2	3750
77.82	26.45	13.6	111.6	1820
63.74	17.21	20.4	101.8	1170
50.05	11.60	27.2	92.0	849
36.28	7.23	34.0	81.9	642
23.13	4.47	40.8	71.6	500
10.00	1.90	47.6	60.8	400
0.00	0.00	58.44	53.6	337
		104°		
100	100	6.45	136.3	4027
93.8	94.41	6.8	136.0	3810
89.86	53.02	13.6	129.3	1870
80.35	38.49	20.4	122.8	1220
70.88	28.53	27.2	116.4	900
61.62	22.55	34.0	110.1	710
52.60	18.15	40.8	103.9	570
43.96	14.82	47.6	96.9	470
35.79	12.31	54.4	92.4	410
28.35	10.37	61.2	87.7	340
21.41	8.75	68.1	83.6	300
14.94	7.11	74.9	80.4	250
8.90	5.26	81.7	77.7	210
3.40	3.20	88.5	76.1	105
3.40	3.40	88.6	102.4	102
		138°		
100	100	12.69	150.3	1970
98.82	93.38	13.6	149.4	1820
91.03	65.48	20.4	142.7	1200
83.70	51.50	27.2	137.3	890
76.74	43.02	34.0	133.0	700
69.97	37.08	40.8	129.8	560
63.45	32.91	47.6	127.1	470
57.06	29.82	54.4	125.2	400
50.90	27.70	61.2	123.6	340
44.90	26.44	68.1	122.5	290
38.92	25.80	74.9	122.0	240
32.00	25.10	81.7	129.3	200
27.40	27.40	84.7	143.6	140
		171°		
100	100	22.40	175.2	960
95.98	86.15	27.2	171.7	790
90.17	72.68	34.0	167.2	620
84.15	63.11	40.8	162.8	520
77.83	55.80	47.6	159.8	440
71.20	50.10	54.4	159.7	370
64.52	46.48	61.2	162.5	320
57.20	43.40	68.1	169.2	270
48.50	42.50	74.9	183.5	230
46.40	46.40	76.3	187.3	190

Hydrogen sulfide (H_2S) + Decane ($C_{10}H_{22}$)

Reamer, Selleck and al., 1953

mol% V	mol% L	P	molar volume V	molar volume L
		4.4°		
0.1	92.5	1.35	-	180.1
"	84.6	2.7	-	168.6
"	76.2	4.1	-	156.4
"	66.1	5.45	-	141.5
"	55.4	6.8	-	138.3
"	38.7	8.5	-	100.8
"	18.6	10.2	-	70.3
0.0	0.0	11.5	1740	41.3
		37.8°		
100.0	100	0.005	-	189
0.1	88.47	3.4	-	180.7
"	76.68	6.8	-	162.8
"	64.57	10.2	-	144.7
"	52.20	13.6	-	126.2
"	39.55	17.0	-	106.7
"	26.37	20.4	-	86.6
"	12.62	23.8	-	65.5
"	0.00	26.8	729.1	45.7
		71°		
100	100	0.11	-	214.8
0.86	78.43	13.6	-	179.6
.73	59.56	27.2	100	149.4
.62	43.19	40.8	620	123.8
.51	29.14	54.4	440	102.5
.40	16.92	68.1	310	85.0
.34	6.76	81.7	220	73.0
.60	0.6	91.60	70.8	70.6
		138°		
100	100	0.40	-	223.5
3.10	83.40	13.6	-	196.4
1.92	68.51	27.2	1120	171.5
1.68	55.61	40.8	690	150.9
1.61	44.42	54.4	500	133.5
1.59	34.48	68.1	370	118.4
1.57	25.77	81.7	290	106.0
1.69	17.99	95.3	220	95.9
1.93	10.30	108.9	163	91.1
5.1	5.1	115.4	96.7	90.5
		171°		
100	100	0.92	-	236.5
7.66	86.48	13.6	2560	210.4
4.40	73.88	27.2	1250	189.8
3.54	62.97	40.8	810	172.0
3.18	53.38	54.4	560	156.7
3.12	44.70	68.1	440	143.5
3.37	37.03	81.7	340	132.2
3.68	29.90	95.3	270	123.0
4.23	23.32	108.9	210	116.2
5.22	16.93	122.5	167	111.1
10.00	10.00	131.7	112	111.2

Hydrogen sulfide (H_2S) + Acetylene (C_2H_2)

Baccei, 1899

Absorption

w.l.	Pm* 0%	25vol%	50vol%	100%
red	7	10	11.5	5.5
6421	-	12	12	6
6417	-	-	6.5	3
6395	-	8	4	2
5435	-	-	12	6
5419	-	-	7	3.5

* minimum pressure (in atm.) where absorption spectrum can be seen.

Hydrogen sulfide (H_2S) + Carbon dioxide (CO_2)

Klemenc and Bankowski, 1932

t	p 100%	28.2mol%	0%
-120	10.5	17.5	7.0
-116	17.1	28.2	11.1
-110	35.0	56.4	21.4
-105	61.1	96.1	35.1
-100	104.2	160	55.3
-95.2	170.2	253	83.0

t	p 100%	28.2mol%	18.2mol%	15.7mol%	9.25mol%
-94.2	187.5	276	276	276	262
-93.2	206.2	301	301	301	277
-91.8	235.1	339	339	339	302
-90	278.6	398	398	398	338
-88	334.0	471	471	471	381
-82	569.1	764	697	667	534
-77	853.1	-	-		700

t	p 5.62mol%	3.30mol%	1.08mol%	0 mol%
-94.2	256	256	256	90.1
-93.2	256	256	256	97.6
-91.8	253	253	253	108.5
-90	262	241	241	125.6
-88	300	240	222	145.9
-82	433	354	270	222.9
-77	571	473	366	309.0
-70	819	685	542	467.2
-65	-	-	699	611.7
-60	-	-	-	788.3

Thiel and Schulte, 1920

p	t	mol% L	mol% V
750	-82.10	25.4	75.3

0% b.t. = -62°

Klemenc, 1932 (fig.)

mol% (V)	p V	p L	mol% (V)	p V	p L
	-82°			-90°	
100	570	770	100	280	400
90	630	"	90	305	"
80	705	"	80	340	"
74	770	"	70	400	"
70	660	"	60	300	"
60	500	"	50	250	"
50	400	"	40	205	"
40	330	"	30	180	"
30	295	"	20	155	"
25	280	"	13	135	"
20	265	715	10	130	360
10	245	550	5	120	240
0	225	-	0	115	240

quadruple point : 9.79% -95.2°/253.2mm

Bierlein and Kay, 1953

mol%	t	P	molar volume(in cc)
	critical point		
0.00	100.38	88.87	97.7
6.30	93.50	88.79	95.4
16.14	84.16	88.60	94.2
26.08	74.48	87.36	93.6
37.59	64.74	84.74	93.1
47.28	56.98	82.12	93.0
66.59	43.72	76.83	93.1
82.92	35.96	73.85	93.5
90.09	33.53	73.19	93.8
100.00	31.10	72.95	94.6

P	t L	molar volume (in cc) L	t V	molar volume (in cc) V
		0%		
15	13.28	41.9	13.28	1307
20	24.50	43.4	24.50	978
25	33.64	44.9	33.64	790
30	41.55	46.3	41.55	674
35	48.58	47.7	48.58	579
40	54.99	49.0	54.99	499
45	60.83	50.4	60.83	431
50	66.28	52.0	66.28	375
55	71.39	53.6	71.39	330
60	76.20	55.4	76.20	290
65	80.76	57.5	80.76	256
70	85.13	59.9	85.13	226
75	89.29	62.9	89.29	199
80	93.29	67.1	93.29	173
85	97.25	73.9	97.25	142
		6.3mol%		
15	1.66	40.7	11.67	1301
20	13.63	42.1	22.79	974
25	23.52	43.5	32.00	773
30	32.02	44.9	39.85	636
35	39.58	46.3	46.92	537
40	46.30	47.6	53.17	461
45	52.46	49.0	58.89	400
50	58.14	50.5	64.16	350
55	63.45	52.1	69.04	309
60	68.43	54.0	73.60	274
65	73.11	56.2	77.81	244
70	77.52	58.7	81.72	217
75	81.70	61.5	85.39	192
80	85.75	65.2	88.83	168
85	89.83	71.2	92.03	136
		16.14mol%		
15	-	-	7.72	1288
20	3.36	41.2	18.62	967
25	13.04	42.5	27.65	767
30	21.44	43.8	35.44	631
35	28.90	45.0	42.12	530
40	35.65	46.3	47.97	454
45	41.79	47.6	53.25	393
50	47.42	49.1	58.20	343
55	52.64	50.7	62.87	303
60	57.59	52.4	67.21	268
65	62.34	54.4	71.20	238
70	66.90	56.9	74.85	211
75	71.30	60.1	78.12	186
80	75.58	64.0	81.15	163
85	79.82	69.4	83.76	135
		26.08mol%		
15	-	-	3.56	1271
20	-	-	13.94	952
25	6.26	42.2	22.51	753
30	14.36	43.4	29.96	619
35	21.54	44.6	36.42	522
40	28.07	45.9	42.16	447
45	34.08	47.3	47.35	389
50	39.62	48.8	52.13	341
55	44.76	50.4	56.56	300
60	49.60	52.3	60.64	265
65	54.23	54.4	64.35	233
70	58.67	56.9	66.59	205
75	62.96	59.8	68.52	180
80	67.18	63.6	70.60	156
85	71.84	70.5	75.80	125
		37.59mol%		
20	-	-	8.16	930
25	1.10	42.4	16.47	738
30	8.76	43.5	23.57	606
35	15.61	44.7	29.84	510
40	21.81	46.1	35.35	437
45	27.53	47.6	40.33	378
50	32.84	49.2	44.88	331
55	37.80	50.9	49.01	291
60	42.46	52.8	52.78	257
65	46.89	55.0	56.25	277
70	51.14	57.6	59.45	200
75	55.25	61.3	62.18	175
80	59.37	66.5	64.78	151
		47.28mol%		
20	-	-	3.30	913
25	-	-	11.70	726
30	5.52	43.8	18.42	595
35	12.11	45.0	24.31	501
40	18.05	46.4	29.58	429
45	23.49	47.9	34.40	372
50	28.53	49.6	38.86	326
55	33.27	51.6	43.04	287
60	37.78	53.9	46.93	253
65	42.11	56.5	50.45	221
70	46.29	59.1	53.06	192
75	50.34	63.2	55.27	164
80	54.37	71.6	57.36	130

		66.59mol%		
25	-	-	0.12	680
30	0.38	44.6	6.69	559
35	6.50	45.9	12.52	469
40	12.10	47.4	17.77	399
45	17.24	49.0	22.51	344
50	22.00	50.8	26.86	297
55	26.44	52.9	30.91	258
60	30.61	55.4	34.70	222
65	34.54	58.6	38.22	190
70	38.21	63.0	41.00	162
75	42.16	73.1	43.61	132
		82.92mol%		
35	3.08	46.8	4.90	445
40	8.40	48.4	10.14	377
45	13.29	50.1	14.93	324
50	17.80	51.9	19.32	279
55	22.00	54.2	23.37	241
60	25.95	57.0	27.14	208
65	29.67	61.2	30.63	176
70	33.12	67.8	33.65	145
		90.09mol%		
35	1.92	47.2	2.70	438
40	7.21	48.8	7.97	372
45	12.04	50.5	12.75	318
50	16.48	52.5	17.13	274
55	20.61	54.8	21.19	236
60	24.43	57.9	25.00	203
65	28.00	62.5	28.46	171
70	31.42	70.0	31.71	136
		100%		
35	0.65	47.8	0.65	440
40	5.80	49.5	5.80	379
45	10.51	51.4	10.51	327
50	14.85	53.6	14.85	282
55	18.82	56.2	18.82	243
60	22.52	59.3	22.52	210
65	26.01	63.5	26.01	182
70	29.26	70.5	29.26	149
72.95	31.10	94.6	31.10	94.6

t	mol% L	mol% V	t	mol% L	mol% V
20 atm.			30 atm.		
24.50	0.0	0.0	41.55	0.0	0.0
20	2.0	13.1	40	1.0	5.6
15	5.2	24.0	35	4.2	16.9
10	9.2	34.1	30	7.7	26.1
5	14.2	44.1	25	12.2	35.3
0	21.1	53.1	20	17.9	44.5
-5	33.1	66.5	15	25.1	53.1
-10	43.1	71.5	10	34.9	61.1
-15	61.8	78.5	5	48.4	69.8
-16	66.9	81.0	0	68.4	80.8
-17	74.8	84.0	-1	73.2	83.7
-18	83.6	88.9	-2	79.3	86.6
-19.08	100.0	100.0	-3.01	100.0	100.0

40 atm.			50 atm.		
54.99	0.0	0.0	66.28	0.0	0.0
50	3.5	12.4	65	1.0	4.5
45	7.4	21.6	60	4.8	13.2
40	11.7	30.0	55	8.9	21.6
35	16.8	38.2	50	13.5	29.5
30	23.2	46.7	45	19.0	37.4
25	31.3	54.6	40	25.5	45.5
20	42.0	63.0	35	33.6	53.4
15	56.3	72.0	30	43.8	61.4
10	75.6	83.5	25	57.2	70.1
9	79.7	86.2	20	73.9	81.1
8	85.2	89.9	17	87.4	90.8
7	91.6	94.2	16	93.2	95.0
5.80	100.0	100.0	14.85	100.0	100.0
60 atm.			70 atm.		
76.20	0.0	0.0	85.13	0.0	0.0
75	0.9	3.5	80	4.2	9.0
70	5.0	12.2	75	8.6	16.0
65	9.2	19.4	70	13.1	22.6
60	13.7	27.1	65	18.4	30.0
55	19.0	34.5	60	24.3	36.9
50	25.6	42.3	55	31.2	44.2
45	33.0	49.6	50	39.8	53.2
40	42.5	58.3	45	48.9	60.1
35	54.0	66.2	40	61.5	68.7
30	68.7	75.9	35	76.5	79.6
25	87.3	90.1	30	96.7	96.9
24	92.2	93.8	29.26	100.0	100.0
22.52	100.0	100.0			
80 atm.					
93.29	0.0	0.0			
90	2.5	5.0			
85	7.0	12.7			
80	11.6	17.6			
75	16.7	24.0			
70	22.5	30.8			
65	29.2	37.3			
60	36.6	43.8			
55	45.6	50.8			
52.08	54.4	54.4			

Hydrogen sulfide (H_2S) + Methyl ether (C_2H_6O)

Baume and Perrot, 1914

mol%	f.t.	mol%	f.t.
100	-137	49.2	-149.2
92.2	140	46.7	150.3
85.2	145	42.8	150.9
80.5	149	39.9	152
75.4	154.2	37.1	153
71.1	159	33.4	144.7
67.4	155	29.2	130.3
63.5	152.5	25.6	121.4
60.6	151	20.0	109.5
58.2	150.2	14.9	101.9
55.4	149.2	11.1	93.2
53.2	148.7	0.0	-82.9
51.1	-148.4		

(1+1)

Hydrogen sulfide (H_2S) + Acetone (C_3H_6O)

Lewis, 1925

%	d	η	%	d	η
		25°			
100	0.78502	304.5	73.48	0.8972	341.5
94.66	.8050	312.2	69.38	.9130	343.0
88.88	.8570	331.3	57.56	.9705	347.1
77.78	.8761	336.5			

Hydrogen sulfide (H_2S) + Methyl alcohol(CH_4O)

Baume and Perrot, 1914

mol%	f.t.	mol%	f.t.
100	-95	54.9	-117.8
92.6	100.0	54.0	111.3
87.2	105.9	51.8	108.6
82.7	110.6	49.5	104.5
77.7	115.8	46.7	100.2
74.1	116.6	43.6	96.5
71.0	122.2	40.3	92.9
67.3	126.1	33.2	90.3
64.5	128.5	28.3	87.5
61.9	132.0	21.9	86.4
58.0	123.4	14.8	85.3
56.2	-116.1	8.1	-84.5

(1+2)

Hydrogen sulfide (H_2S) + Phenylhydrazine ($C_6H_8N_2$)

Nikitin and Pushlenkov, 1954

mol%	f.t.	mol%	f.t.
100	19.2	36.74	-6.2
95.20	17.4	35.98	7.6
90.45	15.0	26.15	10.5
85.44	12.7	18.71	16.8
80.54	9.2	9.80	24.0
73.80	5.8	8.28	28.0
70.30	3.8	7.44	31.0
68.77	3.0	5.63	33.5
67.83	2.4	3.94	41.0
67.50	2.0	2.32	54.5
66.09	1.4	1.03	62.0
65.24	1.2	0.44	70.5
63.73	1.0	0.36	75.5
61.56	0.8	0.25	85.5
56.52	0.2	0.22	87.5
52.87	-0.2	0.12	86.0
45.79	-2.0	0.00	-85.0

(1+2)

mol%	E	mol%	E
96.50	1.4	63.50	-87.5
91.00	"	60.90	"
85.80	"	56.00	"
80.80	"	45.20	"
73.90	"	35.60	"
70.30	"	31.70	"
68.80	"	26.00	"
67.85	"	18.50	"
67.30	"	5.60	"
65.60	-87.5	3.90	"
64.90	-87.5	1.00	"

E_1 : 66.7 mol% 1.4°

E_2 : 99.8 mol% -87.5°

t	p dissoc.	t	p dissoc.
	(1+2)		
1.4	2880	-50	83
0.0	2510	-60	32
-10	1347	-70	12
-20	719	-80	4
-30	367	-90	2
-40	179		

Ammonia (NH_3) + Methane (CH_4)

Jung and Schmick, 1930

%	η	%	η
		14.5°	
100	10.91	40	10.77
90	10.99	30	10.61
80	11.05	20	10.39
70	11.05	10	10.08
60	10.99	0	9.79
50	10.91		

Ammonia (NH_3) (b.t. = -33.6) + Hydrocarbons.

Lecat, 1949

Name	Formula	b.t.	Az %	Az b.t.
Propane	(C_3H_8)	-42.	90-95	-44
Butane	(C_4H_{10})	-0.5	55	-37.1
Isobutane	(C_4H_{10})	-10	65	-38.4
Isopentane	(C_5H_{12})	+27.6	35	-34.5
Propylene	(C_3H_6)	-34.2	85-90	-42
Butene-1	(C_4H_8)	-6	55	-37.5
Isobutene	(C_4H_8)	-6	55	-38.5
Allylene	(C_3H_4)	-23	25	-35
Butadiene	(C_4H_6)	-4.5	45	-38.5
Trimethylene	(C_3H_6)	-31.5	80	-44

Ammonia (NH_3) + Ethylene (C_2H_4)

Thomsen, 1911

%	η	%	η
		12.3 - 13°	
100	10.16	58.0	10.50
92.0	10.37	41.1	10.46
82.5	10.43	18.7	10.28
72.5	10.47	0	10.05

Trautz and Heberling, 1931

%	η 20°	η 100°	η 200°	η 250°
0	9.82	12.79	16.46	18.13
11.33	10.01	12.94	16.47	18.09
19.29	10.13	13.01	16.48	18.05
30.39	10.22	13.04	16.39	17.91
48.28	10.30	13.03	16.22	17.64
70.07	10.27	12.91	15.95	17.29
89.04	10.15	12.69	15.61	16.89
100.00	10.08	12.57	15.41	16.66

Kornfeld and Hilferding, 1931

mol%	heat conductivity . 10^6
25°	
100	52.7
73.60	57.6
41.21	61.2
22.68	62.6
0.00	63.0

Ammonia (NH_3) + Cyclic hydrocarbons.

Francis, 1944

2nd comp.	Formula	C.S.T.
Cyclohexane	(C_6H_{12})	59
Methylcyclohexane	(C_7H_{14})	63
Benzene	(C_6H_6)	below -21
Toluene	(C_7H_8)	-5
m-Xylene	(C_8H_{10})	+15
1-Methylnaphthalene	($C_{11}H_{10}$)	28

Ammonia (NH_3) + m-Xylene (C_8H_{10})

Kraus and Zeitfuchs, 1922

mol%	P 8°	P 10°	P 12°	P 14°
0.0	5.62	6.02	6.44	6.90
1.3	5.60	6.00	6.41	6.86
3.7	5.54	5.92	6.33	6.79
5.0	5.50	5.88	6.30	6.73
9.0	5.50	5.86	6.28	6.70
10.9	5.51	5.88	6.29	6.70
13.5	5.50	5.87	6.28	6.70
16.6	5.51	5.89	6.28	6.70
18.2	5.53	5.89	6.28	6.72
19.8	5.53	-	6.30	-
21.9	5.48	5.86	-	6.66
26.2	5.50	5.88	6.25	6.69
32.6	5.49	5.86	6.28	6.67
35.4	5.48	-	6.26	-
39.3	5.47	5.84	-	6.61
45.8	5.43	-	6.22	-
47.9	5.39	5.74	-	6.46
49.8	5.37	-	6.09	-
49.9	5.42	5.70	-	-
54.0	5.29	-	-	6.30
57.6	5.18	5.49	5.81	6.14
58.7	5.12	5.42	5.71	6.06
62.0	5.01	5.31	5.61	5.92
65.0	4.87	5.14	5.43	5.73
69.2	4.64	4.89	5.15	5.43
75.0	4.16	4.37	4.60	4.83
82.7	3.32	3.47	3.59	3.76
88.2	2.46	2.57	2.67	2.79
90.7	1.97	2.06	2.14	2.22

mol%	P 15°	P 17°	P 20°
0.0	7.11	7.60	8.19
1.3	7.09	7.56	8.33
3.7	6.98	7.46	8.19
5.0	6.95	7.41	8.18
9.0	6.92	7.39	8.13
10.9	6.93	7.39	8.10
13.5	6.91	7.36	8.10
16.6	6.92	7.37	8.10
18.2	6.94	7.39	8.12
21.9	6.89	7.34	8.06
26.2	6.91	7.35	8.06
32.6	6.88	7.31	8.01
39.3	6.82	7.24	7.91
47.9	6.65	7.05	7.68
54.0	6.46	-	-
57.6	6.31	6.68	7.31
58.7	6.24	6.58	7.13
62.0	6.10	6.40	6.93
65.0	5.88	6.20	6.70
69.2	5.56	5.86	6.30
75.0	4.94	5.19	5.56
82.7	3.85	4.01	4.27
88.2	2.85	2.97	3.15
90.7	2.27	2.36	2.49

t	mol% L_1	mol% L_2
8	6.5	43.4
10	8.0	40.0
12	9.4	36.4
14	12.9	28.2

Ammonia (NH_3) + Carbon dioxide (CO_2)

Matignon and Fréjacques, 1921

t	p dissoc. (2+1) (carbamate)
0	12.4
60	770
81	2417
93	3952

Grüsz and Schmick, 1928

mol%	U	mol%	U
	22°		
0	0.922	66.2	1.000
9.8	.943	78.0	0.990
21.0	.966	87.3	0.980
38.0	.986	100.0	0.953
48.4	.994		

Ammonia (NH_3) + Methyl ether (C_2H_6O)

Baume and Perrot, 1914

mol%	f.t.	E	mol%	f.t.	E
5.4	-81.9	-	0	-76.8	-
7.6	-82.7	-	5.2	-79.8	-92.4
10.2	-83.5	-	9.2	-82.6	-92.4
13.0	-83.7	-	12.3	-83.1	-93.4
17.8	-85.5	-91.0	13.0	-80.0	-
23.0	-88.0	-	16.4	-84.1	-91.5
27.3	-89.5	-	19.5	-85.1	-92.9
30.9	-89.4	-	21.9	-85.5	-93.5
33.8	-89.7	-	26.0	-86.9	-
37.8	-91.5	-	29.3	-87.3	-
76.2	-98.6	-139.3	34.5	-84.4	-91.0
97.6	-138.7	-139.6	35.5	-88.6	-
100	-137.8	-	39.8	-86.7	-91.5
			43.4	-88.0	-
45.0	-89.4	-	47.7	-89.2	-
48.1	-90.6	-91.0	51.7	-90.1	-138.1
52.3	-90.3	-	52.2	-89.4	-
56.1	-91.7	-	55.4	-90.3	-138.4
62.5	-93.9	-	55.9	-92.8	-
68.4	-95.6	-	62.3	-92.1	-138.0
77.0	-100.0	-139.7	65.2	-92.6	-137.7
83.1	-106.5	-139.7	68.7	-94.9	-137.8
90.5	-123.6	-139.5	77.4	-99.2	-137.3
100.0	-137.6	-137.6	80.7	-101.7	-138.7
			86.3	-107.5	-137.8
	(1+1)		100.0	-137.3	-

Ammonia (NH_3) + Guanidine (CH_5N_3)

Watt and Mc Bride, 1955

composition of phases in equilibrium

mol %	p	
	-35.5°	
10 - 50	220	C + (1+1) + V
50	220-470	(1+1) + V
50 - 20	470-630	(1+1) + sat.sol. + V

Ammonia (NH_3) + Guanidinium chloride(CH_6N_3Cl)

Watt and Mc Bride, 1955

composition of phases in equilibrium

mol%	p	
	-35.5°	
100-33	70	C_1 + (2+1) + V
33	70-140	(2+1) + V
33-25	140	(2+1) + (3+1) + V
25	140-310	(3+1) + V
25-18	310	(3+1) + (9+2) + V
18	310-450	(9+2) + V
18-14	450	(9+2) + (6+1) + V
14	450-680	(6+1) + V

Ammonia (NH_3) + Dicyandiamide ($C_2H_4N_4$)

Jänecke, 1930

%	f.t.	%	f.t.
44.8	-15 (1+1)	65.0	+61
46.8	-2 "	67.0	74
48.7	+2 "	67.0	82
56.5	30 "	70.9	105
61.1	42 "	75.2	139

tr.t. = 49°

t	p	
	(1+1)	sat.sol.
-78.5	0.005	0.041
-40	.058	.515
-21	.271	-
0	.980	-

Ammonia (NH_3) + Trimethylamine (C_3H_9N)

Lecat, 1949

%	b.t.
0	-33.6
27	below -33.5 Az
100	+ 3.5

Ammonia (NH_3) + Aniline (C_6H_7N)

Franklin and Kraus, 1898

%	D b.t.	%	D b.t.
1.61	+0.069	9.21	+0.365
3.07	.123	11.86	.475
4.44	.169	15.43	.634
4.84	.185	20.95	.904
6.39	.286	24.59	1.095

Ammonia (NH_3) + Pyridine (C_5H_5N)

Franklin and Kraus, 1898

%	D b.t.	%	D b.t.
1.20	+0.050	19.75	+0.818
1.29	.049	24.27	1.004
3.79	.164	28.86	1.211
4.10	.171	33.89	1.423
7.72	.321	39.23	1.681
8.05	.342	45.97	2.031
12.40	.513	49.68	2.240
15.60	.646		

Ammonia (NH_3) + Ammonium thiocyanate (CH_4N_2S)

Foote and Hunter, 1920

%	p	%	p
		0°	
0	3255	63.07	388
55.52	762	65.02	323
57.00	677	68.43	233
57.96	615	72.53	154
59.23	551	74.94	120
60.58	489	75.70 (sat)	105
		10°	
0	4656	66.86	448
61.02	765	68.65	377
62.29	688	71.21	295
62.68	648	75.05	202
64.32	572	77.49 (sat.)	167
65.83	496		
		20°	
0	6480	71.48	473
66.61	756	72.93	415
67.62	682	74.87	340
68.64	620	77.57	259
69.74	560	78.36 (sat.)	237
		30°	
0	8808	76.82	437
70.94	764	78.43	371
71.82	685	79.16	346
73.39	589	80.01 (sat.)	316
75.16	514		
		40°	
0	11722	77.97	587
75.38	748	79.44	503
76.83	658	81.50 (sat.)	411

t	p	t	p
	sat.sol.		
-78	1	-23	34
-65	4	-20	41
-50	9	0	107
-34	21	+22	225

Foote, 1921

%	p	%	p
		30°	
71.11	761	64.30	1337
68.78	939	62.62	1523
66.12	1167		

Foote and Brenkley, 1921

mol%	p	mol%	p
		0°	
41.85	105	21.82	763
40.11	120	20.58	872
37.16	154	19.56	973
32.68	232	18.39	1091
29.39	322	17.48	1198
27.67	387	16.59	1314
25.61	487	15.75	1424
24.55	549	15.89	1545
23.59	613	0	3255
22.89	675		
		10°	
43.54	167	25.85	770
40.26	201	24.58	872
35.65	294	23.43	980
32.91	376	22.40	1086
31.12	446	21.47	1194
30.14	494	20.68	1309
28.75	570	19.64	1440
27.33	646	18.94	1552
27.00	688	0	4656
		20°	
44.78	236	30.32	774
43.63	258	28.86	876
40.02	339	27.52	989
37.69	413	26.35	1106
35.95	471	25.28	1193
34.04	558	24.45	1301
32.90	618	23.61	1417
31.87	680	22.34	1543
30.88	753	0	6480

Foote and Hunter, 1920

%	f.t.	%	f.t.
76.87	+2.8	80.14	31.0
77.49	10.0	80.76	33.0
78.36	20.0	81.50	40.0
78.52	23.3	83.33	49.8
80.01	30.0		

Foote and Brenkley, 1921

%	f.t.
77.12	0
77.30	10
78.65	23

(1+1)

Bradley and Alexander, 1912

% (1+1)	f.t.	% ~~(1+1)~~	f.t.
100	+148	43.82	-79.8
90.11	77	43.37	-76.8
86.78	56	42.57	-75.8
83.45	32	42.23	-79.0
82.38	23	41.38	-79.8
80.60	10.3	40.78	-79.8
79.07	-0.3	40.71	-79.8
78.09	-5.8	39.93	-79.8
77.50	-13.8	39.27	-84.7
76.73	-18	38.47	-86.3
76.06	-20	38.37	-84.3
75.11	-22	37.67	-87
74.39	-24.3	36.95	-87.2
73.70	-25.8	35.45	-87.3
72.33	-29.8	34.40	-88.3
70.87	-34.8	33.89	-89.3
70.10	-39.8	33.60	-90.8
69.25	-42.8	33.59	-91.3
67.71	-39.8	33.21	-95
65.99	-39.2	32.70	-93
63.62	-38.8	32.07	-91.8
61.24	-38.8	31.75	-90.3
57.92	-41.3	31.16	-89
55.92	-42	30.35	-88
54.60	-44	29.00	-85.7
52.67	-47.2	26.23	-82.7
51.24	-52.2	23.82	-81.3
50.25	-57	21.25	-79
48.92	-60.6	20.62	-79.2
47.80	-65.2	16.82	-78.7
46.04	-70.8	13.22	-78
45.35	-72.8	9.99	-77
45.10	-73	6.50	-76.9
44.87	-75.7	5.22	-76.8
44.48	-77	5.10	-76.7
44.09	-79.3	0	-76.2

(1+1) (3+1) (6.5+1) (7+1) (8+1)

Foote and Hunter, 1920

mol%	κ	mol%	κ
		0°	
25.0	1979	40.3	1246
31.1	1640	42.9	1110
36.7	1395		

Ammonia (NH_3) + Formamide (CH_3NO)

Sisler, Vander Werf and Stephanou, 1946

mol%	f.t.	mol%	f.t.	
	CH_3NO			
100	+2.2	64.5	-36.3	
98.1	+1.0	60.3	-44.0	
94.3	-2.3	56.0	-50.9	
92.7	-3.7	53.2	-55.2	
88.5	-8.5	50.8	-62.5	
86.0	-10.4	50.1	-75.1	metast.
84.1	-12.0	49.7	-67.7	
77.4	-19.8	48.9	-75.4	metast.
69.7	-29.8	47.9	-72.7	
66.5	-33.9	46.6	-74.0	
		(1+1)		
46.5	-75.1	34.9	-83.0	
45.1	-75.5	32.7	-90.5	
43.4	-76.0	"	-85.4	
41.1	-77.6	31.5	-86.6	
39.2	-77.6	30.4	-89.5	
		(2+1)		
28.9	-91.9	22.5	-97.5	
28.4	-91.5		-95.0	
26.5	-94.0	22.1	-94.8	
24.6	-92.3	20.8	-96.0	
	-93.0			
		NH_3		
19.8	-94.0	8.1	-83.2	
17.8	-91.4	5.7	-80.9	
16.6	-90.6	0.0	-77.5	
13.1	-85.8			

Ammonia (NH_3) + Urea (CH_4N_2O)

Jänecke, 1930

mol%	P	t	mol%	P	t
		sat.sol.			
26.4	0.053	-78.5	29.5	0.676	-40
27.3	.195	-60	31.4	.950	-35
28.0	.384	-50	98.8	.915	+132

Scholl and Davis, 1934

wt%	mol%	t	P
	sat.sol.		
20.8	6.64	-26.4	1.3
38.8	15.26	+5.8	4.7
51.8	23.39	23.9	7.6
62.8	32.29	35.9	9.2
68.0	37.60	40.9	9.4
73.2	43.59	44.7	9.0
73.2	43.60	44.9	9.1
75.9	47.20	50.0	9.4
79.3	52.05	61.8	11.1
84.8	61.39	81.0	13.4
85.0	61.53	82.0	13.5
91.1	74.38	101.0	12.5

Franklin and Kraus, 1898

%	D b.t.	%	D b.t.
0.17	+0.015	8.92	+0.484
0.84	.054	9.43	.520
1.85	.100	10.75	.587
2.89	.167	11.30	.615
3.00	.177	12.23	.669
3.44	.189	12.32	.663
5.00	.274	13.00	.714
5.56	.313	14.09	.760
7.36	.408	14.75	.782
7.80	.433	15.75	.854
8.23	.452	17.57	.904
8.91	.486	20.96	.997

Jänecke, 1930

%	f.t.	%	f.t.
17.9	-30	75.6	+45
31.8	-50	80.7	66
45.1	+14.5	80.7	66
49.2	20.5	81.4	66.5
54.3	26.0	83.6	78.0
58.1	31.5	91.9	108.5
72.3	43.0		

(1+1) f.t.= 46°

t	p dissoc.	t	p dissoc.
	(1+1)		
-78.5	3	-21	248
-60	14.5	-11	480
-40	72		

Fitzgerald, 1912

M	d	M	d
	-33.5°		
1st series		2nd series	
2.104	0.7516	1.972	0.7511
1.152	.7210	0.943	.7142
0.584	.6995	0.872	.6995
0.300	.6920		

M	η	M	η
	-33.5°		
1st series		2nd series	
2.075	4115	0.806	3184
0.966	3268	.376	2841
.566	2942	.220	2751
.498	2806	.129	2715
.195	2730		
.114	2687		
.067	2660		

Ammonia (NH_3) + Thiourea (CH_4N_2S)

Jänecke and Hoffmann, 1932

%	f.t.	%	f.t.
11.3	-71.8	61.2	+11.8
11.7	-70.2	64.0	28.0
12.7	-68.0	64.9	30.0
18.0	-55.5	66.8	34.2
27.2	-37.1	69.6	40.3
28.6	-33.8	80.5	95.3
30.0	-32.9	81.6	98.7
32.2	-32.8	81.3	100.3
40.7	-19.9	82.3	104.4
44.5	-15.0	83.4	111.4
46.3	-12.8	83.9	111.5
45.4	-14.6	83.9	111.0
46.6	-13.4	86.1	125.2
50.7	-12.0	87.4	127.0
50.0	-10.0	93.9	152.0
53.4	+0.2	95.0	158.0
54.3	+2.0	100.0	181.0
58.2	+6.2		
(3+1)	(1+1)		

t	p dissoc. (3+1)	p dissoc. (1+1)	p sat.sol.
-25	750	75	-
-35	290	35	580
-65	25	4	-
-78	6	1	-

Ammonia (NH_3) + Amygdaline ($C_{20}H_{27}NO_{11}$)

Sherry, 1907

c	$(\alpha)_D$
20 - 23°	
4.1	-53.7
8.2	-53.7
16.4	-53.7
24.3	-53.5

Ammonia (NH_3) + Asparagine ($C_4H_8N_2O_3$)

Sherry, 1907

c	$(\alpha)_D$
20 - 23°	
6.1	-26.4
8.2	-26.9
16.4	-27.1
32.8	-26.4
32.8	-25.6

Ammonia (NH_3) + Methylborate anhydride ($C_3H_9O_3B_3$)

Burg, 1940

t	p dissoc.	t	p dissoc.
(2+1)		(1+1)	
0	12.3	0	1
17	36	33	1.4
26	101	50	3.2
		55	4.3
		73	13.7
		82	57.0

Ammonia (NH_3) + Methyl alcohol (CH_4O)

Hatem, 1946 and 1949

t	N (NH_3)	t	N (NH_3)
0	13.65	25	7.30
10	10.85	30	6.19
15	9.66	35	5.34
20	8.42	40	4.60

N(NH_3)	d 0°	15°	20°	25°	30°
0	0.805	0.794	0.7875	0.785	0.781
1	.803	.788	.784	.780	.776
2	.800	.786	.780	.776	.771
3	.798	.789	.777	.772	.767
4	.796	.780	.774	.768	.763
5	.793	.777	.770	.765	.759
6	.790	.775	.767	.762	.755
7	.787	.772	.7645	.759	-
8	.784	.769	.762	-	-
9	.782	.756	-	-	-
10	.779	-	-	-	-
11	.775	-	-	-	-
12	.772	-	-	-	-
13.6	.770	-	-	-	-

Baume and Perrot, 1914

mol%	f.t.	mol%	f.t.
8.6	-78.8	38.8	-57.7
13.4	-80.0	41.6	-58.7
20.2	-79.8	44.4	-56.2
25.4	-71.0	47.9	-54.7
27.3	-71.5	51.6	-54.3
28.8	-67.7	56.6	-54.9
30.6	-66.2	62.3	-60.9
31.0	-66.0	68.5	-72.9
33.2	-62.8	75.7	-90.4
35.3	-60.8	86.9	-88.4
36.0	-59.4	95.6	-99.6
36.6	-62.3	100.0	-95.0

Ammonia (NH_3) + Ethyl alcohol (C_2H_6O)

Delépine, 1892

%	t	solubility coefficient	d
83.31	0	209.5	0.782
86.22	10	164.3	.787
90.52	20	106.6	.791
93.55	30	97	.798

Franklin and Kraus, 1898

%	D b.t.	%	D b.t.
0.38	+0.019	12.76	+1.071
1.57	.108	13.93	.189
2.26	.161	15.74	.384
3.05	.230	17.99	.611
4.25	.321	21.10	.961
6.00	.463	24.10	2.317
8.11	.645	27.93	2.827
9.23	.800	30.95	3.202
11.01	.905		

Murtazaev and Sklyarova, 1940

mol%	d	η	mol%	d	η
		20°			
0.0	0.6115	168.6	47.84	0.7329	470.4
11.115	.6497	205.7	62.63	.7546	647.5
15.81	.6642	229.2	76.66	.7713	830.9
20.17	.6771	249.8	80.92	.7761	898.0
31.64	.7019	324.3	91.61	.7862	1053.4
38.57	.7171	382.7	100.00	.7905	1250.1

Hatem, 1946 and 1949

t	N(NH_3)	t	N(NH_3)
0	8.65	25	4.32
10	6.62	30	3.79
15	5.69	35	3.30
20	5.02		

N	d 0°	15°	20°	25°	30°	35°
0	0.805	0.793	0.790	0.788	0.785	0.782
1	.800	.787	.785	.782	.779	.776
2	.795	.782	.779	.776	.773	.771
3	.788	.777	.774	.771	.768	.767
4	.784	.773	.770	.767	-	-
5	.780	.769	-	-	-	-
6	.777	-	-	-	-	-
7	.775	-	-	-	-	-
8	.772	-	-	-	-	-

Ammonia (NH_3) + Propyl alcohol (C_3H_8O)

Franklin and Kraus, 1898

%	D b.t.(NH_3)	%	D b.t.(NH_3)
0.49	+0.028	12.28	+0.744
1.80	.106	15.16	0.919
4.54	.261	18.06	1.107
4.64	.294	21.54	1.346
5.51	.329	25.76	1.649
6.38	.371	27.61	1.797
7.39	.436	32.15	2.222
8.93	.527	33.68	2.378
9.42	.565	35.92	2.572
10.22	.612		

Cady and Jones, 1933

mol%	f.t.	mol%	f.t.	
100.0	-127.1	34.33	-85.1	
78.26	-99.0	33.05	-86.2	
70.61	-91.0	31.27	-87.1	
69.61	-88.0	29.21	-88.6	
63.31	-83.7	27.58	-89.3	
62.20	-82.8	24.45	-88.2	(1+1)
57.63	-79.3	22.71	-87.0	
55.35	-79.0	21.70	-86.7	
53.79	-78.2	20.68	-85.7	
50.34	-77.1	16.82	-83.5	
49.27	-77.1	14.88	-82.6	
48.34	-77.3	10.34	-81.1	
46.42	-78.0	4.46	-79.1	
44.88	-79.6	3.88	-78.9	
43.85	-80.1	2.83	-78.1	
39.11	-81.4	0.75	-77.5	
36.70	-84.5	0.00	-77.4	

Hatem, 1949

t	N(NH_3)	t	N(NH_3)
0	7.07	25	3.62
10	5.30	30	3.25
15	4.65	35	2.39
20	4.15		

N	d					
	0°	15°	20°	25°	30°	35°
0	0.820	0.810	0.804	0.803	0.799	0.794
1	.813	.803	.799	.796	.782	.778
2	.808	.797	.794	.791	.786	.782
3	.804	.793	.789	.785	.780	-
4	.799	.788	.784	-	-	-
5	.797	-	-	-	-	-
6	.794	-	-	-	-	-
7	.792	-	-	-	-	-

Ammonia (NH_3) + Isopropyl alcohol (C_3H_8O)

Cady and Jones, 1933

mol%	f.t.	mol%	f.t.	
100.0	-86.6	35.75	-74.0	
99.69	-87.4	31.49	-75.5	
86.18	vitreous	27.81	-77.8	
78.18	-88.1	26.43	-79.1	
72.89	-85.0	23.03	-82.1	
63.25	-81.1	19.45	-85.1	
56.67	-76.3	17.40	-85.6	
53.21	-73.9	12.93	-85.2	
51.34	-72.8	11.94	-84.8	(1+1)
50.02	-72.0	10.84	-83.6	
49.02	-71.9	8.72	-83.0	
45.72	-71.9	7.22	-82.0	
43.40	-71.9	2.13	-79.7	
40.84	-72.2	1.49	-78.8	
39.38	-72.9	0.00	-77.4	
38.16	-72.9			

Hatem, 1949

t	N(NH_3)	t	N(NH_3)
0	6	25	2.98
10	4.55	30	2.52
15	4.05	35	2.25
20	3.48		

N	d					
	0°	15°	20°	25°	30°	35°
0	0.798	0.790	0.785	0.782	0.779	0.777
1	.793	.783	.780	.777	.774	.771
2	.789	.778	.774	.771	.769	.766
3	.785	.774	.770	.765	-	-
4	.791	.769	-	-	-	-
5	.778	-	-	-	-	-
6	.775	-	-	-	-	-

Ammonia (NH_3) + Butyl alcohol ($C_4H_{10}O$)

Cady and Jones, 1933

mol%	f.t.	mol%	f.t.	
100.00	-90.4	32.69	-66.7	
98.2	91.9	30.68	67.7	
86.05	81.6	28.78	68.4	
84.34	77.4	25.92	68.9	
82.31	74.2	22.60	71.8	
77.30	72.8	21.95	71.6	
70.44	69.4	19.69	72.7	
67.47	66.6	16.88	72.9	
60.62	61.9	16.58	76.0	
60.02	62.3	13.05	77.5	
56.23	61.3	10.30	77.3	(1+1)
52.38	60.1	8.24	77.9	
49.56	60.2	6.84	78.6	
47.76	60.6	4.50	78.2	
43.57	62.0	3.84	78.1	
42.47	62.1	3.30	78.5	
40.41	63.1	3.00	78.5	
37.49	-63.6	0.00	-77.4	

Ammonia (NH_3) + Isobutyl alcohol ($C_4H_{10}O$)

Cady and Jones, 1933

mol%	f.t.	mol%	f.t.
100.00	-108.0	35.15	-66.4
87.48	83.4	33.68	67.0
82.83	78.1	30.63	68.4
72.08	71.2	28.61	68.9
69.12	68.1	28.58	69.4
62.84	65.0	26.37	71.2
60.43	62.6	23.50	72.9
56.75	59.6	21.39	73.2
56.37	60.0	19.58	74.6
53.93	59.6	18.75	74.9
51.84	59.3	17.16	76.0
49.87	59.1	15.80	72.6
48.88	60.2	13.08	75.2
48.11	59.5	9.04	76.6
45.09	61.6	7.80	77.1
44.95	60.3	6.23	77.3
42.56	62.9	4.79	77.5
38.38	64.3	4.15	78.2
35.94	-65.4	3.72	78.3
		2.71	78.4
		0.00	-77.4

Ammonia (NH_3) + sec. Butyl alcohol ($C_4H_{10}O$)

Cady and Jones, 1933

mol%	f.t.	mol%	f.t.	
100.0	-114.7	37.83	-63.3	
87.0	94.2	31.14	66.4	
83.22	90.4	23.17	66.9	
78.64	79.9	23.37	68.6	
73.09	73.4	22.14	70.0	
69.05	69.4	19.07	72.1	
67.10	66.6	15.09	73.6	(1+1)
61.06	62.8	13.37	74.2	
58.94	61.7	11.77	74.4	
54.28	60.5	9.39	76.1	
51.81	60.2	8.13	76.5	
50.17	60.1	6.31	77.9	
47.37	60.7	5.27	78.5	
43.57	62.0	1.33	78.1	
41.38	-61.9	0.00	-77.4	

Ammonia (NH_3) + tert. Butyl alcohol ($C_4H_{10}O$)

Cady and Jones, 1933

mol%	f.t.	mol%	f.t.	
100.0	+25.7	36.78	-47.4	
98.70	+19.6	35.07	47.3	
96.67	+18.8	31.55	49.5	
91.99	+11.1	29.07	53.0	
88.47	+5.9	27.61	52.3	
79.19	-6.7	25.15	52.7	
70.02	-20.1	22.12	54.5	
60.55	-37.6	21.47	55.9	
59.81	-39.6	18.23	56.5	
58.69	-43.0	12.96	61.7	
56.02	-44.8	10.69	63.7	
55.60	-44.7	8.92	66.7	
55.01	-43.3	7.66	68.5	(1+1)
51.55	-43.3	5.91	69.9	
48.53	-43.9	4.85	74.4	
44.07	-44.2	3.98	76.1	
43.87	-44.1	3.55	76.5	
42.63	-45.5	3.16	77.9	
40.70	-44.8	0.88	78.5	
39.08	-46.1	0.51	78.1	
37.96	-46.9	0.00	-77.4	

Ammonia (NH_3) + Saccharose ($C_{12}H_{22}O_{11}$)

Amagasa, Ito and Nisizawa, 1939

%	p	%	p	%	p
-4.95°		-0.62°		+4.86°	
0	2667	0	3147	0	3848
42.71	2530	42.31	3000	39.97	3684
48.62	2474	45.98	2951	46.72	3604
53.98	2369	51.52	2851	52.15	3473
60.97	2147	62.80	2451	59.22	3210
66.33	1927	68.62	2086	66.63	2720
				69.51	2450
+10.46°		+13.79°			
0	4686	0	5247		
43.54	4436	39.73	5031		
49.30	4315	45.89	4933		
50.70	4283	52.94	4722		
56.64	4056	58.89	4425		
61.27	3805	63.42	4084		
66.81	3356	65.49	3884		
		70.34	3296		
		72.49	3001		

Franklin and Kraus, 1898

%	D b.t.	%	D b.t.
99.54	+0.007	95.55	+0.039
98.31	.019	90.98	.113
95.58	.047	86.14	.180
92.50	.080	80.60	.271
88.70	.126	76.89	.330
87.30	.148	72.09	.467
81.68	.237	70.06	.527
78.43	.301		
72.09	.448	82.85	+0.228
62.63	.761	81.17	.263
59.88	.885	78.95	.303
56.88	1.042	76.72	.357
		74.47	.425
		71.42	.502
		68.27	.600
		66.16	.676

Fitzgerald, 1912

c*	d	c	d
-33.5°			
1.720	1.0530	0.1650	0.7170
0.8230	0.8628	.0791	.6974
.4474	.7803	.0430	.6903
.3018	.7506	.0000	.6825

c*	η	c	η
-73.5°			
0.9208	2234	0.0698	290
.3909	608	.0393	278
.2202	360	.0221	272
.1240	311		

* moles saccharose in 1 liter ammonia.

Ammonia (NH_3) + Glucose ($C_6H_{12}O_6$)

Sherry, 1907

c	$(\alpha)_D$
20 - 23°	
3.47	56.1
6.94	54.7
6.94	55.5
13.9	54.8
27.8	55.3

Ammonia (NH_3) + Lactose ($C_{12}H_{22}O_{11}$)

Sherry, 1907

c	$(\alpha)_D$
20 - 23°	
6.95	33.2
13.9	33.5
27.8	32.5

Ammonia (NH_3) + Phenol (C_6H_6O)

Franklin and Kraus, 1898

%	D b.t.	%	D b.t.
0.74	+0.028	13.59	+0.512
2.33	.086	13.92	.509
5.93	.200	14.78	.547
8.99	.334	17.79	.715
9.21	.373	21.98	.820
10.05	.363	23.72	.914
12.55	.480		

Ammonia (NH_3) + Resorcinol ($C_6H_6O_2$)

Franklin and Kraus, 1898

%	D b.t.	%	D b.t.
1.01	+0.032	9.30	+0.327
2.73	.085	10.21	.370
3.03	.103	13.65	.497
5.72	.194	14.54	.541
6.07	.212	16.89	.645

Ammonia (NH_3) + Pyrocatechol ($C_6H_6O_2$)

Franklin and Kraus, 1898

%	D b.t.	%	D b.t.
0.74	+0.012	9.66	+0.314
1.85	.045	10.16	.328
4.28	.132	10.29	.344
5.25	.168	15.21	.524
6.23	.198	19.27	.690
6.81	.210	21.35	.768
9.39	.280		

Ammonia (NH_3) + Hydroquinone ($C_6H_6O_2$)

Franklin and Kraus, 1898

%	D b.t.	%	D b.t.	%	D b.t.
0.56	+0.024	7.41	+0.304	0.77	+0.019
1.60	.056	7.98	.328	1.84	.061
3.43	.122	8.97	.366	5.55	.189
4.51	.162	11.89	.492	6.39	.220
6.09	.224	12.60	.558	7.12	.262
8.12	.307	14.52	.630	8.19	.311
10.41	.403	16.38	.720	9.37	.352
12.46	.497	18.36	.839	10.65	.398
13.43	.543			10.87	.420
				12.23	.446
				17.26	.719

Ammonia (NH_3) + o-Nitrophenol ($C_6H_5NO_3$)

Franklin and Kraus, 1898

%	D b.t.
0.75	+0.027
3.00	.076
6.05	.157
9.77	.263
17.24	.499

Ammonia (NH_3) + Formic acid (CH_2O_2)

Groschuff, 1903

%(1+1)	f.t.	%(1+1)	f.t.
(1+2)		(1+1)	
35.3	-3	50.0	11
40.6	+8.5	57.8	39
50.0	+21.5	73.1	78
		100.0	100.0

Kendall and Adler, 1921

mol%	f.t.	mol%	f.t.
50.00	117.3	78.18	-8.7
52.19	111.7	78.96	-13.7
53.07	108.5	79.73	-23.5
54.82	103.7	81.89	-26.0
56.74	98.5	81.08	-32.5
57.36	96.5	82.14	-30.0
59.44	89.5	83.03	-31.3
62.50	74.3	84.07	-33.8
65.84	53.1	85.39	-26.9
67.63	37.5	87.92	-19.8
68.46	29.3	88.95	-12.6
69.27	20.4	90.79	-6.9
69.97	25.8	92.42	-2.8
70.47	24.9	94.10	+0.6
71.78	22.2	96.60	4.5
73.38	17.3	98.50	7.0
75.05	10.4	100.00	8.47
76.85	+0.7		

(1+4) (1+2) (1+1)

Ammonia (NH_3) + Acetic acid ($C_2H_4O_2$)

Franklin and Kraus, 1898

%	D b.t.	%	D b.t.
0.21	+0.013	8.60	+0.297
1.95	.073	10.55	.346
5.48	.187	11.11	.334
6.13	.223	12.02	.395
6.76	.239	13.34	.424

Davidson, Sisler and Stoenner, 1944

mol%	f.t.	mol%	f.t.
	(1+2)		
76.3	50.1	68.7	66.5
73.7	59.5	67.4	67.0
69.8	66.0		
	(1+1)		
66.0	69.0	54.4	112.0
65.1	73.5	53.3	114.0
64.1	79.5	52.0	115.5
60.4	96.5	50.0	117.0
59.2	100.5	49.0	117.0
56.7	106.5	48.4	117.0
	(5+4)		
46.9	119.0	32.2	104.5
45.5	120.0	30.8	100.0
44.8	119.5	28.8	91.0
44.3	119.5	28.1	87.0
44.0	119.5	27.8	85.0
41.0	118.0	27.3	81.0
33.6	116.4	26.8	78.0
	(2+1)		
25.6	6.5	19.8	-7.0
24.3	4.5	18.8	-9.0
23.8	3.0	15.4	-20.5
22.0	-1.0	12.7	-29.5
	(9+1)		
11.2	-35.5	2.4	-61.5
10.4	-34.0	2.0	-64.0
9.1	-34.5	1.1	-77.5
7.4	-40.5		
	NH_3		
0.7	-78.5	0.0	-77.5

Davidson and Mc Allister, 1930

mol%	f.t.	mol%	f.t.	mol%	f.t.
100	16.50	81.20	24.0	67.54	66.2
98.27	15.65	78.70	40.1	66.67	66.5
95.57	14.20	76.27	50.1	66.50	66.2
94.48	13.40	74.94	54.2	65.90	66.0
91.45	10.45	74.10	56.4	65.07	65.2
90.31	9.00	71.02	63.0	64.59	68.5
89.27	6.90	69.46	64.9	64.27	70.8
88.13	4.51	68.95	65.5	62.99	75.7
87.30	2.80	68.57	65.9	61.49	83.6
85.59	-2.5	67.73	66.0	59.00	93.3
85.41	-3.0			56.55	102
84.36	-6.5			52.84	108
83.72	2.5			50.00	113
82.86	9.6				
			(1+2)	(1+1)	

Hydrazine (N_2H_4) + Diphenylamine ($C_{12}H_{11}N$)

Semishin, 1949

mol%	f.t.	sat.t.	mol%	f.t.
0.0	+1.7	-	48.05	41.0
4.52	-0.8	33.7	52.50	42.7
6.19	-	42.5	56.68	44.3
11.85	-	68.2	62.59	45.8
15.20	-	82.0	66.61	47.0
21.02	-	104.5	70.97	48.0
26.40	-37.14	122.5(above)	77.10	49.1
			82.21	50.1
			86.04	51.2
			90.51	52.0
			92.90	52.3
			100.00	54.0

Hydrazine (N_2H_4) + Urea (CH_4N_2O)

Semishin, 1939

mol%	f.t.	E	mol%	f.t.	E
0.00	+1.7	-	44.39	+32.0	-
3.50	-1.0	-	48.02	43.3	-39.0
7.11	-3.4	-	51.19	55.7	-
10.48	-6.2	-39.1	55.30	72.0	-
13.55	-8.9	-39.2	58.76	80.4	-39.2
16.42	-12.6	-	65.40	89.8	-39.1
19.14	-16.2	-39.2	69.15	94.0	-
29.00	-25.4	-39.2	73.66	100.0	-
31.45	-29.4	-39.1	78.27	104.8	-
34.29	-24.0	-39.2	94.92	126.1	-
39.73	+11.4	-39.1	100.00	+132.7	-

Hydrazine (N_2H_4) + Acetamide (C_2H_5ON)

Semishin, 1943

mol%	f.t.	E	mol%	f.t.	E
0.0	+1.7	-	44.70	26.5	-
5.05	-1.6	-17.0	50.01	34.5	-17.2
8.00	-2.8	-17.2	54.70	40.7	-
10.05	-5.2	-17.2	60.10	47.0	-17.1
18.29	-10.6	-17.4	65.20	52.1	-
22.51	-13.6	-	70.20	60.0	-
26.95	-5.3	-	77.32	66.0	-
31.13	+4.2	-17.2	80.61	68.6	-
32.0	+8.1	-	84.56	71.6	-
34.68	15.0	-	94.90	78.4	-
37.90	19.5	-17.0	100.0	81.6	-

Hydrazine (N_2H_4) + Methyl alcohol (CH_4O)

Corcoran, Kruse and Skolnik, 1953

mol%	f.t.	E	mol%	f.t.	E
0.0	+1.52	-	39.9	-24.3	-60.0
5.1	-1.2	-	42.3	-26.9	-
10.0	-3.5	-	45.1	-31.2	-59.7
15.1	-6.3	-62.3	45.4*	-47.3	-
20.1	-8.1	-61.8	50.5	-38.2	-
25.1	-12.3	-61.8	52.9	-42.8	-60.1
31.5	-16.4	-61.8	53.8	-45.1	-
37.2	-21.2	-60.3	55.0	-47.0	-
37.5m	(-47.3)*	-60.8	55.9	-49.6	-60.7
				-47.0	

* incongruent f.t. of (1+1)

mol%	f.t.	mol%	f.t.	
57.0	-52.7	67.1	-57.9	
57.1	-47.9	68.1	-58.0	
57.6	-53.3	69.6	-58.4	
58.0	-55.3	71.4	-60.4	
59.0	-58.3	74.5	-61.5	
59.1	-48.9	75.2	-64.1	
59.5	-50.0	75.7	-63.0	
60.0	-49.0	77.0	-64.8	
60.3	-49.7	78.0	-66.3	
60.5	-49.0	78.9	-68.5	
61.0	-49.6	79.8	-69.4	(1+4)
62.0	-50.5	83.9	-69.9	
62.2	-51.0	87.9	-72.9	
62.6	-50.9	90.2	-76.0	
62.9	-50.9	92.5	-79.8	
63.0	-51.6	92.5	-100 E	
63.2	-58.5	93.5	-82.1	
63.9	-51.9	94.9	-85.4	
64.0	-53.3	97.7	-95.9	
64.9	-58.1	98.6	-99.0	
66.2	-57.8 (1+2)	100.0	-98.0	

Hydrazine (N_2H_4) + Ethyl alcohol (C_2H_6O)

Corcoran, Kruse and Skolnik, 1953

mol%	f.t.	E	mol%	f.t.	E
0.0	+1.52	-	56.3	-33.5	-33.7
6.3	-1.2	-	58.9	32.7	-
7.6	1.6	-34.2	62.3	31.8	-
16.9	4.4	-	64.9	31.5	-
20.3	5.9	-33.9	67.6	31.8	-
23.5	6.7	-33.9	70.5	32.1	-
27.6	8.5	-33.8	73.4	32.8	-
31.5	10.2	-33.9	76.0	33.2	-
34.9	12.3	-33.5	79.6	36.4	-116.7
37.9	15.5	-33.9	79.9	36.7	-
40.5	15.5	-33.7	82.1	37.7	-
45.0	20.3	-33.7	85.9	42.4	-
46.8	23.1	-33.5	88.5	46.0	-
48.4	25.4	-33.4	91.7	51.0	-
51.0	29.3	-33.5	94.8	62.6	-117.4
54.2	-33.5	-	98.2	115.0	-
			100.0	-114.0	-

(1+2) f.t. = -31.2°

E_1 : 55mol% -33.7° E_2 : 98mol% -117.3°

Hydrazine (N_2H_4) + Phenol (C_6H_6O)

Semishin, 1939

mol%	f.t.	E	mol%	f.t.	E
0.00	+1.7	-	60.54	60.1	-
11.02	-8.8	-	64.89	62.8	-
13.65	-11.1	-	68.22	63.2	-
16.12	-14.3	-24.7	71.83	62.4	-
19.78	-19.5	-24.3	74.53	60.8	-
22.86	-19.3	-24.8	76.40	58.4	24.4
25.91	-11.2	-24.6	78.94	54.0	24.3
30.00	+0.4	-24.6	81.15	50.0	24.3
37.58	+11.8	-24.8	82.98	45.6	24.4
39.73	22.0	-24.6	85.74	37.0	24.4
43.57	30.2	-24.7	87.48	30.0	24.4
48.14	40.0	-24.3	91.93	30.3	24.3
51.07	46.6	-	96.21	35.7	24.4
54.63	52.6	-	100	40.8	-
57.58	57.6	-			

(1+2) f.t. = 63.5°

Hydrazine (N_2H_4) + Thymol ($C_{10}H_{14}O$)

Semishin, 1943

mol%	f.t.	E	mol%	f.t.
0.00	+1.7	-	68.10	+5.5
4.51	-1.5	-	70.38	12.1
7.46	4.0	-	74.82	21.4
11.66	5.7	-29.2	78.40	30.0
15.43	8.0	-	84.46	38.7
20.01	11.6	-29.8	87.14	41.5
26.16	18.7	-	91.78	45.8
31.47	-25.6	-	100.00	50.7

Hydrazine (N_2H_4) + Acetic acid ($C_2H_4O_2$)

Semishin, 1943

mol%	f.t.	E	mol%	f.t.	
0.00	+1.7	-	43.77	+83.5	
4.33	-3.0	-	47.50	87.1	
6.89	-5.2	-	50.44	87.5	(1+1)
8.63	-7.0	-23.3	53.76	82.8	
10.63	-11.0	-23.0	57.58	74.0	
13.14	-16.5	-23.4	63.42	61.1	
15.00	-9.7	-23.2	66.68	47.0	
17.30	+5.0	-23.3	70.18	33.2	
19.22	13.0	-23.1	70.60	29.4	
22.80	28.1	-	73.95	+17.1	
26.50	42.5	-	80.16	-	
31.48	61.5	-23.2	82.78	-8.5	
35.60	72.7	-	88.50	-4.2	
39.48	+79.0	-	93.02	+10.2	
			100.00	+16.6	

Semishin, 1944

mol%	d 0°	25°	50°	75°
0.00	1.0231	1.0024	0.9801	-
6.05	.0546	.0338	1.0147	-
10.09	.0745	.0587	.0386	-
19.56	.1217	.1046	.0863	-
30.30	.1551	.1401	.1259	1.0982
41.10	cryst.	.1621	.1471	.1252
48.45	"	.1644	.1478	.1270
50.00	"	.1608	.1439	.1244
57.85	"	.1644	.1462	.1266
68.73	"	.1688	.1491	.1299
75.00	1.1972	.1747	.1506	-
80.42	.1936	.1707	.1464	-
84.12	.1876	.1647	.1409	-
86.90	.1826	.1551	.1311	-
93.02	.1211	.0968	.0728	-
100.00	cryst.	.0479	.0177	-

mol%	η 0°	25°	50°	75°
0.00	1365	903.1	673.1	-
6.05	2793	1538	973.6	-
10.09	4940	2400	1403	-
19.56	19740	7426	3409	-
30.30	60290	25910	9612	4481
41.10	cryst.	52490	15140	6108
48.45	"	95820	24030	9300
50.00	"	105480	26360	10100
57.85	"	72370	19460	7663
68.73	"	42060	12270	5301
75.00	116630	31220	9441	-
80.42	184480	25160	7824	-
84.12	157470	19030	6577	-
86.90	139310	13480	5221	-
93.02	117980	6341	2981	-
100.00	cryst.	1164	778	-

Hydrazine (N_2H_4) + Butyric acid ($C_4H_8O_2$)

Semishin, 1943

mol%	f.t.	E	mol%	f.t.	E
0.0	+1.7	-	46.56	+ 50.2	-
3.98	-3.8	-23.8	49.72	50.2	-
7.50	-8.2	-23.2	52.50	45.4	-
12.20	-14.9	-23.5	55.30	38.2	-
19.83	-14.1	-	60.00	20.0	-
23.49	-1.0	-23.4	62.80	+ 5.2	-
27.35	+14.5	-	66.00	-11.3	-
29.48	19.8	-23.4	70.40	-33.0	-
32.20	28.2	-	80.80	-20.0	-
34.90	36.2	-	89.96	-13.0	-33
41.30	+ 45.8	-	100.00	-7.9	-
	(1+1)				

Hydrazine (N_2H_4) + Valeric acid ($C_5H_{10}O_2$)

Semishin, 1943

mol%	f.t.	E	mol%	f.t.	E
0.00	+1.7	-	56.01	42.0	-
8.50	-4.2	-	59.10	35.1	12.0
13.28	-7.3	-17.2	63.69	23.8	12.0
16.57	-10.8	-17.1	66.40	16.2	11.6
18.98	-14.0	-17.0	68.20	11.9	-
21.00	-17.1	-17.2	72.71	8.2	-
21.63	-10.6	-	74.20	4.7	-
26.48	+8.5	-17.1	80.30	-28.1	-
30.55	21.3	-17.0	82.00	-45.9	-
36.20	34.9	-17.1	86.00	-41.2	-
39.42	39.8	-	90.82	-36.5	-
44.48	46.2	-	94.50	-35.1	-
51.48	49.4	-	100.00	-33.4	-
		(1+1)	(1+2)		

Hydrazine (N_2H_4) + Benzoic acid ($C_7H_6O_2$)

Semishin, 1943

mol%	f.t.	mol%	f.t.	E
0.00	+1.7	46.12	108.9	-
3.98	-3.2	49.50	114.6(1+1)	-
8.64	-8.9	52.18	111.6	85.4
12.05	-15.6	54.10	108.0	85.3
16.40	-25.2	56.00	102.0	85.0
21.02	vitreous	57.90	92.1	85.4
24.22	-0.1	59.50	86.0	85.4
26.30	+26.1	61.10	91.2	85.0
27.99	36.9	63.92	94.5	-
30.58	55.6	66.25	95.5(1+2)	-
33.96	74.3	69.00	94.0	83.2
36.28	84.3	71.35	91.0	83.2
38.29	90.5	74.30	87.3	83.2
40.91	97.2	78.00	97.3	83.4
43.37	102.9	83.40	108.9	-
44.20	104.5	100.00	121.7	-

E_2 : 59.3mol% 85.4° E_3 : 75.7mol% 83.2°

Hydrazine (N_2H_4) + Salicylic acid ($C_7H_6O_3$)

Semishin, 1943

mol%	f.t.	mol%	f.t.	tr.t.
0.0	+1.7	44.80	87.1	-
0.81	-0.9	49.42	97.6	-
2.38	-4.0	51.00	101.8	-
6.01	-9.2	56.40	106.9	-
7.26	-12.3	60.70	110.7	-
11.40-22.16	vitreous	64.52	117.7	110.8
28.10	+14.3	66.60	121.3	110.7
31.23	37.4	70.00	125.0	110.7
34.20	51.6	73.95	127.0	110.7
38.32	68.1	86.20	154.0	-
41.52	78.2	100.00	159.2	-

(1+1) 110.8°

Hydrazine (N_2H_4) + Lauric acid ($C_{12}H_{24}O_2$)

Semishin, 1943

mol %	f.t.	mol %	f.t.
0.00	+1.7	88.82	42
4.8-83.0	decomposes	100.00	44

E : 37.7°

Hydrazine (N_2H_4) + Palmitic acid ($C_{16}H_{32}O_2$)

Semishin, 1943

mol %	f.t.	mol %	f.t.
0.00	+1.7	88.64	60.3
6.6-83.8	decomposes	100.00	62.6

E : 54.8°

Diborane (B_2H_6) + Tetrahydrofuran (C_4H_8O)

Rice, Livasy and Schaeffer, 1955

mol%	f.t.	mol%	f.t.
100	-107.8	78	-76.7
95	-112.5	75	-63.6
94	-114.0	73	-54.7
91	-114.7	71	-48.2
90	-113.6	69	-40.1
85	-110.2	66	-56.2
80	-79.8	0	-168.0

E : 91 mol % -117° (1+2) -34°

Tetramethylsilane ($C_4H_{12}Si$) + Methyliodide (CH_3I)

Lecat, 1949

%	b.t.
0	26.64
71.2	26.10 Az
100.0	42.60

Iodine chloride (ClI) + Carbon tetrachloride (CCl_4)

Cornog and Olson, 1940

mol%	f.t.	m.t.	mol%	f.t.
0.0	27.3	-	43.2	20.5
0.85	-	23.1	54.0	20.0
2.0	26.0	-	64.6	19.0
3.9	25.0	-	73.2	17.0
4.1	-	18.8	78.4	15.0
9.4	23.0	-	85.2	10.0
15.1	22.0	-	90.7	0.1
15.3	-	10.2	93.2	-8.0
24.3	21.0	-	95.3	-15.7
29.3	-	0.1	98.2	-26.4 E
38.5	-	-8.0	100.0	-22.7

sat.t.	mol%	
	L_1	L_2
0	76.2	15.3
10	65.6	29.5

Iodine chloride (ClI) + Pyridine (C_5H_5N)

Fialkov and Muzika, 1948

mol%	f.t.	mol%	f.t.	E
0	27.10	33.56	34.80	-
1.27	25.06	34.10	29.10	23.60
2.38	22.65	35.11	23.60	23.60
4.59	18.00	36.31	28.15	23.60
6.66	16.20	39.49	68.50	23.60
8.45	10.10	50.61	128.50	-
11.38	-9.15	62.62	105.20	-
20.73	-6.30	71.54	80.10	-
23.89	+5.70	87.49	35.96	-
25.09	13.90	92.84	8.60	-50.20
26.70	19.50	96.02	-36.20	-50.20
28.82	23.50	98.90	-48.10	-50.20
30.66	27.08	100.00	-41.50	-
33.34	35.10 (2+1)		(1+1)	

mol %	d	
	35°	50°
0	3.193	3.166
4.01	3.178	3.129
8.07	3.045	3.009
18.415	2.778	2.746
24.235	2.6246	2.595
26.02	2.545	2.5260
30.31	2.439	2.429
33.78	2.414	2.401
35.14	2.397	2.370
36.34	2.365	2.353

mol%	κ 35°	κ 50°	mol%	κ 35°	κ 50°
0	48.2	58.4	16.22	123.4	175.6
0.92	107.3	133.9	21.74	70.2	112.6
2.01	171.4	218.9	27.66	46.4	71.1
4.42	205.1	265.8	28.78	42.6	68.7
6.31	213.9	268.5	30.85	41.1	63.9
8.12	202.0	269.7	32.81	35.1	54.3
9.86	191.1	253.4	34.81	33.7	54.5
11.54	179.1	237.3			

Iodine chloride (ClI) + Acetamide (C_2H_5ON)

Fialkov and Muzika, 1950

mol%	η 45°	η 35°	η 25°
0.00	2550	3058	3729
7.46	4509	4909	5492
13.38	5234	5591	6358
20.71	6848	7712	8968
27.65	10153	12062	14869
37.20	10888	12887	20133
44.48	11845	16854	32068
50.06	13180	22046	39404
59.00	15546	28283	52901
61.70	16322	-	-
64.22	16508	28698	-
66.45	17475	29935	60264
70.02	13797	25897	-
74.11	12546	21737	41507
77.54	12053	19861	-

Iodine chloride (ClI) + Benzamide (C_7H_7ON)

Fialkov and Muzika, 1949

mol%	f.t.	E
0	27.15	-
2.69	21.00	-
1.10	9.30	-
9.48	7.10	-23.0
14.23	-	-22.50
21.55	-	-24.90
31.74	16.50	-23.80
38.92	27.90	-
46.25	35.65	-
50.00	36.90 (1+1)	-
53.20	27.85	+23.10
53.49	26.55	-
56.32	24.98	-
59.09	37.00	23.50
63.66	50.30	23.40
66.09	-	23.20
74.72	79.10	-
85.60	99.50	-
100.00	127.80	

mol%	d 50°	mol%	d 50°
0.00	3.166	26.52	2.333
4.93	2.966	28.70	2.227
6.29	2.923	34.71	2.092
9.30	2.840	42.43	1.953
12.86	2.780	44.26	1.920
17.28	2.581	50.35	1.854
18.88	2.520	54.37	1.785
20.33	2.512	57.72	1.747
21.88	2.416		

mol%	η 50°	mol%	η 50°
0	2255	33.53	9471
2.75	2412	38.87	12585
6.95	2749	41.52	13812
11.47	2287	47.84	19494
15.69	4017	51.05	24819
19.34	4662	53.61	26712
23.15	5447	55.91	31730
31.46	7920	60.90	33583

mol%	κ 35°	κ 50°	mol%	κ 35°	κ 50°
0.00	48.2	50.8(?)	30.22	56.7	95.8
4.83	214.7	283.0	33.49	36.2	77.7
9.17	217.0	296.4	46.28	14.7	31.6
11.88	208.0	274.5	50.81	-	24.3
14.08	174.2	252.8	54.19	9.2	19.7
21.17	130.8	177.1	60.87	-	17.9

Iodine chloride (ClI) + Diethyl benzamide ($C_{11}H_{15}ON$)

Fialkov and Muzika, 1951

mol %	d 35°	d 50°	mol %	d 35°	d 50°
100.00	1.071	1.023	35.25	1.985	1.900
63.55	.405	.358	0.00	3.192	3.166
53.88	.600	.521			

mol %	η 35°	η 50°	mol %	η 35°	η 50°
100.00	3052	2015	48.22	53452	18162
69.52	15687	7889	35.71	39214	11112
63.65	25991	10004	24.25	15159	5871
57.71	36124	14882	16.36	9767	4379
52.23	53096	17849	0.00	5808	2870

mol %	κ 35°	κ 50°	mol %	κ 35°	κ 50°
95.75	198.0	270.3	71.32	34.43	54.39
94.52	-	300.0	63.95	19.59	33.89
91.93	229.7	310.0	53.62	9.13	17.13
89.53	194.0	279.4	51.98	4.57	10.57
87.01	174.2	237.1	47.61	4.80	8.96
83.19	145.7	196.1	33.05	4.00	8.15
77.21	63.0	132.8	18.47	3.92	7.52

Iodine chloride (ClI) + Acetic acid ($C_2H_4O_2$)

Cornog and Olson, 1940

mol%	f.t.	mol%	f.t.	
0.0	27.3	34.3	10.0	
4.9	26.0	42.1	0.1	
7.3	25.0	53.2	-18.2	
12.8	23.0	60.0	-35.5	E
17.8	20.0	68.4	-18.2	
19.6	19.0	82.2	0.1	
24.0	17.0	91.3	+10.2	
26.7	15.0	100.0	16.4	

Iodine trichloride (ICl_3) + Acetic acid ($C_2H_4O_2$)

Bruns, 1925

%	κ	%	κ
	18°		
99.9775	0.00491	94.380	0.20663
99.9752	.00592	94.114	.27960
99.9442	.00734	93.550	.33810
99.9256	.00824	92.733	.49660
99.8820	.00917	90.650	.1869
99.8653	.01015	90.305	.7407
99.8104	.01455	89.50	.8472
99.7600	.01373	83.59	1.387
99.5858	.01811	81.95	1.933
99.5382	.02245	77.66	3.404
99.4023	.02579	74.49	0.6674
99.2750	.02527	70.48	6.609
99.083	.06998	70.16	7.293
98.592	.04229	67.28	1.523
97.693	.06940	66.74	9.568
96.550	.10260	49.90	6.709
96.379	.10594	46.69	8.057
96.143	.14790		

t	κ	t	κ	t	κ
6.45%		7.27%		10.50%	
16	0.3096	16	0.4844	5	0.7529
20	.3381	18	.4966	7	.7721
22	.3459	20	.5122	9	.7955
24	.3491	22	.5196	12	.8231
26	.3634	24	.5238	16	.8430
28	.3837	26	.5238	20	.8557
30	.3883	28	.5305	24	.8720
32	.4234	30	.5280	28	.8305
34	.4510	32	.5389	32	.7721
36	.4706	34	.5548	36	.7721
38	.4966	36	.5732	40	.8091
40	.5233			44	.8557
44	.5753			48	.9107
48	.6311				
52	.6948				
56	.7557				
60	.8151				

Boron fluoride (BF_3) + Pentane (C_5H_{12})

Cade, Dunn and Hepp, 1946

P	mol% V	mol% L
	49°	
4.0	38.1	99.45
6.7	24.1	98.73
9.2	19.5	98.12
11.9	16.1	97.11
14.7	15.5	96.36
	66°	
3.8	62.1	99.76
6.5	32.9	99.14
9.2	23.8	98.47
11.9	22.2	97.84
14.8	17.3	96.88
	93°	
6.5	77.3	99.73
8.9	57.1	99.14
9.1	50.4	98.94
12.2	-	98.09
12.4	44.4	98.00

Boron fluoride (BF_3) + Methyl chloride (CH_3Cl)

Booth and Martin, 1942

mol%	f.t.	mol%	f.t.
100.0	-96.7	50.2	-122.6
96.4	-98.2	48.9	-122.6
93.3	-99.3	47.4	-124.3
90.6	-100.2	47.4	-126.0
88.3	-101.1	45.9	-125.8
87.2	-101.3	43.8	-129.4
84.0	-102.7	43.1	-130.4
80.6	-104.0	40.7	-133.6
77.5	-105.4	38.4	-136.0
74.7	-107.0	38.2	-136.3
72.1	-108.3	37.0	-140.5
69.8	-109.6	36.2	-144.4
69.2	-109.9	34.9	-144.1
68.2	-110.6	33.4	-144.1
67.7	-111.0	31.2	-143.1
67.3	-111.5	29.8	-142.4
66.9	-111.6	27.5	-141.0
66.5	-111.7	24.9	-138.9
66.1	-111.8	22.4	-137.2
65.8	-112.2	19.3	-135.6
65.2	-112.5	16.7	-134.0
64.6	-112.8	15.5	-133.3
64.0	-113.3	14.2	-132.2
60.8	-115.6	12.7	-132.4
58.8	-116.8	11.5	-131.4
56.9	-117.8	9.5	-130.7
55.1	-120.2	7.5	-130.0
53.6	-120.4	5.2	-129.2
52.4	-121.5	2.7	-128.1
51.7	-121.3	0.0	-126.8
51.4	-121.6		

E: 34.5mol% -144.8°

Boron trifluoride (BF_3) + Dichlordifluormethane (CF_2Cl_2)

Booth and Walkup, 1944

Non miscible .

Boron trifluoride (BF_3) + Monochlortrifluormethane (CF_3Cl)

Booth and Walkup, 1944

mol %	f.t.	mol %	f.t.
100.00	-181.6	44.62	-130.4
96.19	-140.3	40.39	-130.6
91.64	-136.0	35.01	-130.6
88.35	-134.5	30.11	-130.6
84.32	-132.1	25.33	-130.5
79.31	-130.5	20.25	-130.6
74.74	-130.6	16.69	-130.5
69.70	-130.6	13.67	-130.5
65.17	-130.6	9.80	-129.5
59.99	-130.5	7.11	-128.8
54.41	-130.5	3.48	-128.1
49.68	-130.6	0.00	-127.6
(second series)			
100.00	-181.6	52.28	-130.5
93.37	-137.8	47.04	-130.5
88.07	-134.1	34.20	-130.5
83.95	-133.1	27.39	-130.5
80.32	-131.1	22.40	-130.4
77.19	-130.5	17.18	-130.4
71.89	-130.5	13.87	-130.4
68.10	-130.5	6.90	-128.6
62.03	-130.5	0.00	-127.6
58.45	-130.5		

Boron trifluoride (BF_3) + Tetrafluormethane (CF_4)

Booth and Walkup, 1944

mol %	f.t.	mol %	f.t.	mol %	f.t.
100.00	-180.1	65.01	-131.2	30.03	-131.2
96.43	-144.1	59.69	-131.2	25.30	-131.2
90.60	-135.1	54.94	-131.2	19.40	-131.4
85.30	-132.9	49.76	-131.4	16.00	-131.2
81.36	-132.0	45.01	-131.4	12.37	-130.9
78.06	-131.6	40.15	-131.4	3.62	-128.5
69.78	-131.2	35.65	-131.2	0.00	-127.8
(second series)					
100.00	-180.1	57.48	-131.4	27.69	-131.4
86.81	-133.1	52.45	-131.4	23.50	-131.3
82.03	-132.4	47.32	-131.2	10.74	-129.8
74.05	-131:4	42.58	-131.4	8.00	-129.0
72.80	-131.4	43.60	-131.2	4.42	-128.4
67.18	-131.4	37.72	-131.4	0.00	-127.8
62.95	-131.4	33.07	-131.2		

Boron trifluoride (BF_3) + Phosgene ($COCl_2$)

Martin and Faust, 1949

mol%	f.t.	E	mol%	f.t.	E
0	-127.6	-	60.3	-	-138.0
5.5	-130.0	-	60.7	-138.0	-
10.6	-130.5	-	64.7	-138.0	-
19.3	-133.0	-	66.2	-137.0	-
25.7	-135.5	-	69.3	-138.0	-
30.9	-136.3	-	70.1	-137.5	-
34.6	-	-142.3	75.2	-	-143.0
40.1	-142.0	-	80.1	-142.0	-
45.2	-135.0	-142.3	84.7	-138.0	-
49.7	-	-142.3	89.5	-136.3	-
50.5	-134.3	-142.3	95.7	-134.0	-
55.2	-135.0	-	100.0	-132.5	-
59.1	-136.3	-			

(1+1) -134.3 (1+2) -137.0

E_1 : 39.6 mol% -142.3

E_2 : 61.6 mol% -138.0

E_3 : 77.8 mol% -143.0

Boron fluoride (BF_3) (b.t. = -101) + Ethers.

Lecat, 1949

Name	Formula	b.t.	Az %	Az b.t.
Methylether	(C_2H_6O)	-21	40	+127
Methylethyl-ether	(C_3H_8O)	+10.8	47	+127
Ethylether	($C_4H_{10}O$)	+34.5	52	+125
Methylamylether	($C_6H_{14}O$)	+100 (760mm)	60	55 (10mm)
Isopropylether	($C_6H_{14}O$)	+69 (760mm)	61	60 (98mm)

Boron trifluoride (BF_3) (b.t.= -101) + Esters.

Lecat, 1949

Name	Formula	b.t.	Az %	Az b.t.
Methyl formate	($C_2H_4O_2$)	+31.9	47	+91
Ethyl formate	($C_3H_6O_2$)	54.1	52	+102
Methyl acetate	($C_3H_6O_2$)	57.1	52	+110
Ethyl acetate	($C_4H_8O_2$)	77.05	56	+119
Propyl acetate	($C_5H_{10}O_2$)	101.6	60	+127
Ethyl propionate	($C_5H_{10}O_2$)	99.15	60	216
Methyl glycolate	($C_4H_{10}O_2$)	151	57	60 (3mm)

Boron fluoride (BF_3) + Trimethylamine (C_3H_9N)

Lecat, 1949

%	b.t.
0	-101
47	+230 Az
100	+3.5

Boron fluoride (BF_3) + Acetonitrile (C_2H_3N)

Lecat, 1949

%	b.t.
0	-101
38	+101 Az
100	+81.6

Boron fluoride (BF_3) + Benzonitrile (C_7H_5N)

Brown and Johannesen, 1950

mol%	p	mol%	p
	40°		
100	1.9	54.0	7.2
98.1	3.2	53.2	7.0
96.8	3.8	51.7	7.2
95.4	4.6	50.8	7.7
94.6	5.1	49.7	58.2
87.3	6.7	49.1	87.8
73.9	6.9	48.8	120.8
58.1	7.0		

Boron fluoride (BF_3) + Methyl alcohol (CH_4O)

O'Leary and Wenzke, 1933

M (BF_3)	molar conductivity	%	p
	25°		
1.118	23.44	95.86	124
0.558	29.26	90.25	131
.279	35.11	81.35	120
.140	41.25	79.89	118
.0699	47.28	78.79	113
.0350	52.42	66.23	88
.0175	55.38	59.12	60
.0087	55.02	56.74	53
.0044	49.19	51.65	29
.0022	38.05	50.99	34
.0011	23.78	45.11	9
.00055	11.74	42.08	12
.00027	6.19	35.26	21
.00014	5.86	34.84	23
.00007	5.27	32.55	42
.00003	2.05	31.42	158

Boron fluoride (BF_3) (b.t.= -101) + Alcohols

Lecat, 1949

Second comp.			Az		
Name	Formula	b.t.	%	b.t.	p mm
Methyl alcohol	(CH_4O)	64.7	52	165.7 58	760 4
Ethyl alcohol	(C_2H_6O)	78.3	42	179.3 51	760 15
Propyl alcohol	(C_3H_8O)	97.25	36	198.25 56	760 2
Butyl alcohol	($C_4H_{10}O$)	117.75	31	228.75 64.5	760 3

Boron fluoride (BF_3) (b.t. = 101) + Acids

Lecat, 1949

Second comp.			Az		
Name	Formula	b.t.	%	b.t.	p mm
Formic acid	(CH_2O_2)	100.75	58	201.75 43	760 11
Acetic acid	($C_2H_4O_2$)	118	-	229 36	760 13
Propionic "	($C_3H_6O_2$)	140.7	31	241.7 62	760 17
Butyric acid	($C_4H_8O_2$)	162.45	28	263.45 64	760 11
Crotonic acid	($C_4H_6O_2$)	189	28	290 81	760 12.5

Boron trichloride (BCl_3) + Methyl chloride (CH_3Cl)

Martin and Hicks, 1946

mol%	f.t.	E	mol%	f.t.	E
100.0	-97.1	-	49.7	-124.4	125.4
90.0	-101.8	-	45.0	-120.4	125.0
88.2	-102.2	-	40.0	-121.9	-
80.4	-106.3	-	35.1	-118.8	125.1
74.8	-109.0	-	29.7	-117.1	-
70.2	-112.5	-	24.5	-115.0	-
65.2	-114.2	125.2	19.8	-113.6	-
62.8	-117.3	-	14.4	-111.7	-
58.4	-119.8	-	9.6	-110.3	-
57.8	-118.4	124.9	0.0	-107.6	-

E: 48.2mol% -125.1°

Boron trichloride (BCl_3) + Ethyl chloride (C_2H_5Cl)

Martin and Hicks, 1946

mol%	f.t.	mol%	f.t.
100	-138.4	45.0	-116.6
90.1	-142.3	39.7	-116.3
85.5	-143.6	34.9	-115.8
80.0	-139.2	29.9	-116.1
74.4	-134.5	25.1	-115.8
69.9	-127.4	20.0	-113.9
64.2	-125.5	14.9	-112.0
60.0	-121.2	9.6	-110.6
55.1	-119.5	0	-107.5
50.1	-116.9		

(2+1) f.t. = -115.8 E_1 : 85.7mol% -143.9
E_2 : 27.2mol% -116.3

Boron trichloride (BCl_3) + Propyl chloride (C_3H_7Cl)

Martin and Humphrey, 1947

mol%	f.t.	E	mol%	f.t.	E
100.0	-122.3	-	45.0	-127.5	-141.8
93.8	123.7	-	40.0	123.6	-
90.0	126.0	-142.0	35.1	120.5	-
85.5	127.3	-	29.9	116.8	-
85.1	129.1	-	29.8	118.2	-
79.8	130.5	-	24.9	115.6	-
74.9	131.9	-	20.0	113.0	-
69.8	134.0	-	14.9	111.7	-
64.9	135.9	-142.9	10.0	108.6	-
62.8	-	-141.7	4.9	108.0	-
60.0	139.2	-	0.0	107.2	-
55.0	137.3	-141.8	0.0	-106.7	-
50.5	132.2	-141.9			
47.5	-129.3	-141.8			

E : 57.6mol% -141.8

Boron trichloride (BCl_3) + Isopropyl chloride (C_3H_7Cl)

Martin and Humphrey, 1947

mol%	f.t.	E	mol%	f.t.	E
100	-117.8	-	40.4	-111.9	-
95.3	118.3	-	36.7	112.7	-114.8
90.2	113.3	-	33.6	113.8	-
89.6	113.8	-	31.0	114.8	-
85.1	111.2	-118.3	27.5	114.7	-
80.3	107.3	-118.7	25.0	-	-114.6
76.5	105.3	-	22.3	113.1	-
75.8	105.0	-	17.5	112.8	-
70.6	105.4	-	13.9	110.6	-
70.3	105.9	-	10.1	109.4	-
65.4	106.0	-	7.1	108.0	-
60.7	106.8	-	5.0	107.8	-
55.5	107.7	-	2.0	106.9	-
50.4	109.0	-	0.0	-107.3	-
45.4	-110.6	-			

(1+3) f.t. = -105.0 E_1 : 93.6mol% = -118.5
E_2 : 29.3mol% = -114.7

Boron trichloride (BCl_3) + Phosgene ($COCl_2$)

Martin and Faust, 1949

mol%	f.t.	mol%	f.t.
0.0	-107.3	49.9	-126.5
6.5	108.3	54.2	128.0
10.0	110.0	57.6	129.6
15.4	111.6	64.6	135.3
20.0	113.6	68.8	139.0
24.7	115.0	73.6	142.3(E:74.4mol%)
29.6	118.0	78.4	141.0
33.8	119.6	83.6	138.0
39.4	121.0	87.8	135.0
45.0	-123.0	93.0	133.0
		100.0	-132.5

Boron trichloride (BCl_3) + Acetyl chloride (C_2H_3OCl)

Greenwood and Wade, 1956

mol%	f.t.	mol%	f.t.	
0.0	-107	48.6	-55	
27.8	-58	50.0	-54	(1+1)
32.5	-57	66.1	-56	
36.9	-55.5	66.5	-57	
43.3	-55	69.0	-58	
44.3	-55	100.0	-98	

mol%	p	mol%	p
	0°		
0.0	478	59.3	371
5.2	473	65.3	341
10.8	460	68.9	314
16.7	456	77.1	289
28.6	434	81.4	242
36.2	415	89.7	210
40.7	396	93.1	175
48.6	394	100.0	86
52.7	376		

t	p	t	p
	50mol%		
-72	8	-13.0	217
68	9	-8.5	261
59	16	-6.0	287
54	23	-3.5	322
49	29	-0.5	359
43	42	+1.5	391
38	55	+3.0	420
35	66	+6.5	473
31	86	+8.0	500
24	132	+10.7	552
20.5	150	+13.4	604
-17.5	174		

Boron trichloride (BCl_3) + Benzoyl chloride (C_7H_5OCl)

Greenwood and Wade, 1956

mol%	f.t.	mol%	f.t.
0.0	-107	56.2	-13.3
4.8	-22.8	65.5	-14.5
20.4	-15.8	71.7	-12.8
28.9	-14.8	87.1	-5.8
45.3	-13.8	98.3	-0.5
48.1	-13.6	100.0	-0.5
52.9	-13.7		

mol%	p	mol%	p
	0°		
0.0	478	53.9	295
34.3	380	56.2	285
35.4	378	65.4	254
39.6	361	68.1	238
41.1	358	68.3	240
42.8	351	70.0	223
44.6	344	70.9	207
46.5	336	81.4	139
48.2	324	88.3	92
48.5	328	93.6	64
50.5	319	100.0	0.1
52.7	308		

Phosphorus trichloride (PCl_3) + Benzene (C_6H_6)

Traube, 1895

%	d	%	d
	20°		
100	0.88235	89.317	0.92583
96.893	.89519	71.859	1.00599
94.133	.90629	59.658	1.07442

Phosphorus trichloride (PCl_3) + Ether ($C_4H_{10}O$)

Rozentreter, 1932

mol%	d 0°	d 10°	d 18°
0.00	1.609	1.531	1.576
18.78	.465	.450	.430
20.34	.450	.435	.420
36.61	.315	.300	.283
55.62	.120	.100	.087
73.42	0.935	0.940	0.930
81.66	.888	.873	.865
96.23	.840	.830	.820
100.00	.736	.725	.703

mol%	η 0°	η 10°	η 18°
0.00	714.6	674.3	612.7
18.78	634.3	601.8	542.3
20.34	630.2	597.0	537.1
36.61	567.3	534.6	476.9
55.62	476.0	440.6	390.2
73.42	393.0	369.3	338.9
81.66	370.0	344.9	314.3
86.23	355.2	318.0	298.8
100.00	295.0	268.1	240.2

Phosphorus trichloride (PCl_3) + Camphor ($C_{10}H_{16}O$)

Schlundt, 1903

%	d	$(\alpha)_D$	%	d	$(\alpha)_D$
		-10°			
0	1.6655	-	42.075	1.2865	48.87
26.1346	.4031	46.96			
		0°			
0	1.6146	-	18.296	1.4498	47.48
3.0745	.5519	47.13	26.1346	.3888	48.09
5.1442	.5680	45.42	42.075	.2753	49.65
6.7257	.5538	45.97	59.114	.1716	50.65
		20°			
0	1.5794	-	3.0745	1.5519	47.13
1.0468	.5714	46.81	5.1442	.5255	47.80
1.1887	.5678	46.80			

		25°			
5.5447	1.5274	47.71	26.1346	1:3601	50.22
6.7257	.5190	48.00	42.075	.2516	51.43
10.028	.4878	48.44	59.114	.1510	52.29
18.296	.4199	49.37			
		40°			
0	1.5232*	-	26.1346	1.3311	52.28
6.7257	.4825	50.08	42.075	.2304	53.31
18.296	.3870	51.47	59.114	.1281	54.19

* 50°

%	d				
	50°	60°	70°	80°	90°
59.114	1.1165	1.1048	1.0943	1.0816	1.0709

%	$(\alpha)_D$				
	50°	60°	70°	80°	90°
59.114	55.38	56.39	57.16	58.13	58.71

Phosphorus trichloride (PCl_3) + Methyl malate 1 ($C_6H_{10}O_5$)

Grossmann and Landau, 1910

(α)	c* at 20°		
	50.326	25.004	5.298
red	- 83.24	- 87.99	- 91.36
yellow	-105.31	-110.18	-117.59
green	-130.75	-139.98	-142.51
pale blue	-166.71	-178.77	-184.03
dark blue	-182.91	-195.37	-203.10
violet	-211.22	-222.76	-230.84

* g PCl_3 in 100 cc

Phosphorus trichloride (PCl_3) + Ethyl tartrate ($C_8H_{14}O_6$)

Grossmann and Landau, 1910

(α)	c* at 20°	
	25.636	5.009
red	-175.53	-163.71
yellow	-221.95	-213.62
green	-279.10	-274.51
pale blue	-358.87	-344.38
dark blue	-417.38	-378.32
violet	-455.22	-421.24

* g PCl_3 in 100 cc

Phosphorus tribromide (PBr_3) + Trinitrotoluene ($C_7H_5O_6N_3$)

Pushin, 1940-46

%	sat.t.	f.t.	E
0	-	-40	-40
2.5	-	+42	-
5	-	54.5	-
6.5	-	59	-
9	68.5	65	-
10	70	"	-
15	76	"	-
20	79	"	-
26.5	80.5	"	-
29	81	"	-40
33.5	80	"	-
36	79.5	"	-
41.5	77	"	-
45	75	"	-
49	71.5	"	-
52.5	67	"	-
60.5	-	67.5	-
68.5	-	70	-40
75.5	-	72.5	-
80	-	74	-
83	-	75	-
86	-	76	-
91.5	-	78	-
100	-	81	81

Phosphorus tribromide (PBr_3) + Benzene (C_6H_6)

Traube, 1895

%	d
	20°
100	0.88235
98.025	.89509
93.262	.92697
85.319	.98295
71.760	1.09698

Phosphorus trichloride tetrabromide (PCl_3Br_4) + Nitrobenzene ($C_6H_5O_2N$)

Fialkov and Kuzmenko, 1952

mol%	κ	mol%	κ
		20°	
98.64	1.07	75.40	149
96.25	24.8	63.47	181
94.67	29.0	58.79	211
93.59	54.7	51.63	243
92.37	64.9	50.99	254
86.51	105	44.40	286
85.47	115		

Phosphorus trichloride octabromide (PCl_3Br_8) + Nitrobenzene ($C_6H_5O_2N$)

Fialkov and Kuzmenko, 1952

mol%	κ	mol%	κ
	20°		
97.24	14.1	59.44	267
93.95	48.0	49.59	323
83.98	135	44.94	341
76.57	189	16.89	403
66.32	249	0.00	421

Phosphorus trichloride octodecabromide (PCl_3Br_{18}) Nitrobenzene ($C_6H_5O_2N$)

Fialkov and Kuzmenko, 1952

mol%	κ	mol%	κ
	20°		
93.54	102	60.23	456
89.24	167	49.88	508
83.75	241	43.76	432
69.21	387		

Arsenic trichloride ($AsCl_3$) + Stilbene ($C_{14}H_{12}$)

Pushin, 1948

mol%	f.t.	mol%	f.t.	E
100	124	39.5	70	-
90	119	30	55	-
77.5	110	20	31	-
70	108	15	18	-19
60	98	0	-19	-
49	84			

Arsenic trichloride ($AsCl_3$) + Carbon tetrachloride (CCl_4)

Sisler, Pfahler and Wilson, 1948 (fig.)

mol%	f.t.	mol%	f.t.
0	-18	77	-50 E
20	-26	80	-48 tr.t.
40	-34	100	-23
60	-43		

Arsenic trichloride ($AsCl_3$) + Ether ($C_4H_{10}O$)

Usanovich, 1929

%	d	κ	molar cond. ($AsCl_3$)
		18°	
0.00	2.16	0.001	0.04
0.90	2.12	1.347	12
1.53	2.09	1.838	16
3.93	1.98	2.218	21
6.58	1.88	2.272	23
7.14	1.86	1.993	20
8.54	1.82	2.131	23
12.20	1.72	0.983	10
15.71	1.64	0.720	9
21.81	1.52	0.565	9
22.27	1.51	0.625	10
25.56	1.44	0.557	9
31.19	1.36	0.389	8
31.54	1.34	0.203	4
36.86	1.28	0.081	2
52.08	1.05	0.008	0.3
54.20	1.04	0.010	0.4
58.96	1.00	0.008	0.4

Terpugov, 1932

%	η				
	10°	18°	30°	40°	50°
0.00	1425	1259	1088	967	869
10.15	1380	1228	1091	915	799
22.02	1260	1108	944	822	709
32.55	1155	1005	851	743	655
44.03	1007	868	731	630	545
53.13	856	751	632	556	469
64.38	660	597	510	443	389
70.01	540	497	431	393	358
75.93	476	444	392	-	-
86.18	370	345	311	-	-
93.57	308	284	257	-	-
100.00	268	240	223	-	-

%	κ				
	10°	18°	30°	40°	50°
0.00	0.00275	0.00291	0.06316	0.06362	0.00403
9.81	0.89410	1.08600	0.98000	0.82740	0.70080
20.84	2.30700	2.24200	1.90600	1.55600	1.14400
33.00	0.40400	0.33110	0.27090	0.20720	0.14560
34.54	0.35340	0.31820	0.24870	0.17920	0.12700
46.41	0.32000	0.24640	0.17500	0.12420	0.09600
51.00	0.25760	0.20460	0.14000	0.09910	0.06200
60.48	0.08153	0.06200	0.03787	0.02600	0.01967
69.59	0.01846	0.01523	0.01187	-	-
73.83	0.00811	0.00655	0.00455	-	-

Arsenic trichloride ($AsCl_3$) + Methyl malate 1 ($C_6H_{10}O_5$)

Grossmann and Landau, 1910

c*	red	yellow	(α) green	pale blue	dark blue	viol.
			20°			
50.200	+6.39	+8.47	+10.72	+13.71	+15.90	+18.15
25.100	9.32	11.63	15.38	19.56	22.83	-
12.550	10.84	12.91	17.13	21.12	25.10	-
5.122	11.52	14.94	18.55	23.23	25.97	29.68
2.561	8.20	10.54	14.06	17.96	20.30	-

* g $AsCl_3$ in 100cc

Arsenic trichloride ($AsCl_3$) + Ethyl tartrate ($C_8H_{14}O_6$)

Grossmann and Landau, 1910

c*	red	yellow	(α) green	pale blue	dark blue	viol.
			20°			
49.954	-10.71	-14.91	-19.82	-27.33	-33.23	-39.64
24.977	-10.25	-14.49	-10.30	-26.98	-32.67	-
12.4885	-9.93	-14.01	-18.74	-26.18	-31.79	-
4.859	-2.47	-5.15	-7.20	-10.91	-13.58	-17.08
2.4295	-4.94	-4.53	+4.12	-3.70	-3.29	-

* g $AsCl_3$ in 100cc

Arsenic trichloride ($AsCl_3$) + Aniline (C_6H_7N)

Pushin, 1948

mol%	f.t.	mol%	f.t.	
0	-19	69.5	151.5	
10	+66	75.0	156	
19	85	76.8	155	
25	96	77.5	154.5	(1+3)
30	104	82.0	148	
40	118	85.5	135	
44	125	100.0	-6	
57	140			

Arsenic trichloride ($AsCl_3$) + o-Toluidine (C_7H_9N)

Pushin and Hrustanovic, 1938

mol%	f.t.	mol%	f.t.	
0	-20	64	+140	
10	+32	70	144	
20	60	75	146	
30	82	80	144	
40	93	90	108	(1+3)
50	98	100	-24	
60	130 (1+1)			

Arsenic trichloride ($AsCl_3$) + m-Toluidine(C_7H_9N)

Pushin and Hrustanovich, 1938

mol%	f.t.	mol%	f.t.	
0	-20	65	+145	
10	+36	70	157	
20	65	75	162	(1+3)
30	84	80	158	
40	95	90	102	
50	98 (1+1)	95	+20	
60	+116			

Arsenic trichloride ($AsCl_3$) + p-Toluidine(C_7H_9N)

Pushin and Hrustanovic, 1938

mol%	f.t.	mol%	f.t.
0	-20	60	+180
10	+8	70	198
20	40	75	200 (1+3)
30	75	80	198
40	115	90	164
50	+155	100	+44

Arsenic trichloride ($AsCl_3$) + 1,3,5-Xylidine ($C_8H_{11}N$)

Pushin, 1948

mol%	f.t.	mol%	f.t.	
0	-19	69	185	
10	+29	75	187	
39	122	80	185	
48	145	90	168	(1+3)
59	170	100	-6	

Arsenic trichloride ($AsCl_3$) + Diphenylamine ($C_{12}H_{11}N$)

Pushin and Hrustanovic, 1938

mol%	f.t.	mol%	f.t.
0	-20	60	69
10	+28	70	58
20	55	75	50
30	68	80	45
40	75	90	52
50	77 (1+1)	100	54

Arsenic trichloride ($AsCl_3$) + 10-Chlor-9,10- Dihydrophenarsine ($C_{12}H_9NAsCl$)

Pushin and Hrustanovic, 1938

mol%	f.t.	mol%	f.t.
0	-20	50	152
10	+20	60	168
15	36	70	182
17	38 (5+1)	80	188
20	53	90	192
30	98	100	195
40	128		

mol%	κ 50°	κ 60°	mol%	κ 50°	κ 60°
0.00	-	-	50.03	0.359	-
6.87	0.069	0.064	50.61	-	0.335
13.47	-	0.173	52.40	0.341	-
16.75	0.253	-	52.66	-	0.328
19.28	-	0.256	54.97	0.336	-
22.91	0.318	-	55.88	-	0.311
24.30	-	0.298	58.18	0.322	-
28.83	-	0.344	60.19	-	0.282
29.55	0.373	-	61.49	0.294	-
33.20	0.403	-	64.59	-	0.254
34.75	-	0.363	65.62	0.265	-
36.04	0.385	-	71.59	-	0.194
39.03	-	0.363	71.78	0.185	-
40.88	0.395	-	78.68	-	0.131
41.36	-	0.358	80.11	0.113	-
43.37	0.387	-	81.91	0.106	-
44.08	-	0.354	86.43	-	0.071
45.16	0.379	-	86.71	0.076	-
47.34	-	0.344	91.71	0.040	0.042
47.35	0.378	-	95.58	0.033	0.038

Arsenic trichloride ($AsCl_3$) + Trinitrotoluene ($C_7H_5O_6N_3$)

Pushin, 1940-46

%	f.t.	E	%	f.t.	E
0	-19	-	75	69	-21
20	-	-25	83	74.5	-
30	+18	-	93	78	-
46	40	-30	100	81	-
58	54	-25			

Arsenic trichloride ($AsCl_3$) + Acetic acid ($C_2H_4O_2$)

Sumarokova and Glushchenko, 1951

mol%	d 20°	d 50°	d 60°	d 70°
0.00	2.1646	2.0995	2.0785	2.0583
18.75	-	1.9593	1.9387	1.9177
27.10	-	.8864	.8666	.8468
46.37	-	.7068	.6880	.6680
59.30	1.6230	.5696	.5509	.5332
58.23	.5142	.4666	.4454	.4297
78.26	.3835	.3376	.3240	.3070
89.70	.2165	.1752	.1628	.1514
100.00	.0489	.0154	.0058	0.9925

mol%	η 20°	η 50°	η 60°	η 70°
0.00	1025	821.8	744.9	688.7
18.75	1213	872.8	779.6	702.4
27.10	-	900.5	793.3	719.7
36.90	1378	932.5	819.1	-
46.37	-	923.7	831.9	736.7
47.10	1466	-	-	-
59.30	1562	982.0	840.9	743.2
70.10	1541	970.2	830.4	727.7
78.26	1487	946.0	812.0	713.1
90.17	1312	879.3	759.9	667.9
100.00	1209	765.0	650.0	550.0

Arsenic trichloride ($AsCl_3$) + Chloracetic acid ($C_2H_3O_2Cl$)

Sumarokova and Glushchenko, 1951

mol %	d 50°	d 60°	d 70°
0.00	2.0995	2.0785	2.0583
21.60	1.9708	1.9515	1.9317
29.77	.9500	.9004	.8809
33.34	.9011	.8797	.8587
46.00	.8156	.7975	.7791
74.57	.8076	.7900	.7720
65.47	.6735	.6579	.6411
78.46	.5752	.5607	.5461
85.66	.5124	.5030	.4860
89.18	-	.4690	.4564
91.60	-	.4465	.4333
94.30	-	.4229	-
95.68	-	.4115	.3991

mol%	η 50°	η 60°	η 70°
0.00	822	745	689
21.60	1003	894	812
29.73	1084	965	867
33.34	1140	1013	907
46.00	1340	1166	1016
74.57	1387	1198	1056
64.47	1756	1485	1281
78.46	-	1774	1521
79.30	2191	1809	1541
85.66	-	1989	1678
89.18	2650	2135	1779
91.60	-	2222	1844
94.30	-	2292	1902
95.68	-	2328	1955
100.00	3091	2446	2051

Arsenic trichloride ($AsCl_3$) + Trichloracetic acid ($C_2HO_2Cl_3$)

Sumarokova and Babkov, 1951

mol%	d 20°	d 35°	d 60°
0.00	2.1624	2.1231	2.0624
13.93	2.0749	2.0431	1.9957
25.26	2.0106	1.9820	.9419
31.15	1.9896	.9623	.9050
36.20	1.9621	.9251	.8851
43.75	1.9159	.8842	.8462
60.76	1.8279	.8043	.7709
77.89	-	.7258	.6872
91.74	-	-	.6344
100.00	-	-	.6051

mol%	η 20°	η 35°	η 60°
0.00	1226 (sic)	1050 (sic)	805 (sic)
13.93	1403	1153	851
25.26	1621	1361	952
31.15	1871	1479	993
36.20	1952	1556	1051
43.75	2292	1801	1219
60.76	3544	2592	1595
77.89	-	4039	2276
91.74	-	-	3248
100.00	-	-	3865

Arsenic tribromide ($AsBr_3$) + Naphthalene($C_{10}H_8$)

Pushin and Krieger, 1914

mol %	f.t.	E	tr.t.	mol %	f.t.	E	tr.t.
0.0	31.0	-	-	29.0	19.6	-	-
4.5	28.7	-	-	30.0	19.3	9.6	-
8.0	25.7	-	-	30.7	19.7	-	-
10.9	23.8	-	15.6	31.0	19.6	-	-
15.5	20.6	9.3	17.2	32.0	19.6	9.6	19.8
19.4	17.2	9.3	17.1	32.9	19.4	10.0	19.9
20.5	16.3	-	17.1	35.0	21.6	9.9	19.9
22.0	14.8	9.5	16.7	38.0	25.8	-	19.6
23.0	14.0	9.8	17.0	40.3	28.0	-	19.8
24.9	11.8	9.6	-	41.7	30.0	-	19.4
27.0	18.8	-	-	45.0	37.6	-	-
28.9	19.2	-	-				

Arsenic tribromide ($AsBr_3$) + Toluene (C_7H_8)

Gryszkiewicz, Trochimowsky and Sikorski, 1927

%	d
	16.5°
35.38	1.6863
52.12	1.3568
100	0.8697

%	n H_α	n D	n H_β	n H_γ
		16.5°		
35.38	1.5817	1.5880	1.6042	1.6210
52.12	.5455	.5511	.5660	.5791
100.00	.4937	.4986	.5102	.5200

Arsenic tribromide ($AsBr_3$) + Methyl ether (C_2H_6O)

Usanovich and Rosentreter, 1932 and 1933

%	d	%	d
	18°		
7.44	2.81	28.39	1.72
11.91	2.50	39.64	1.41
12.15	2.48	44.46	1.32
14.08	2.34	57.45	1.11
18.47	2.12	63.13	1.04
21.77	1.98	74.06	0.93
25.88	1.81	77.52	0.90

mol%	κ 0°	κ 18°	κ 30°
94.76	0.2874	0.1675	-
93.74	.2829	.1622	-
89.98	.5271	.3718	-
87.63	-	.7017	0.5026
80.77	-	1.354	1.310
77.47	-	.707	1.578
67.53	-	.866	2.008
64.40	-	.977	.157
59.35	-	2.007	.329
54.25	-	1.850	.115
47.24	-	.847	.116
42.04	-	.716	1.953
41.49	-	.505	.708
29.65	-	.283	.438
0.00	-	-	0.0016

Arsenic tribromide ($AsBr_3$) + Ethyl ether ($C_4H_{10}O$)

Usanovich, 1927

%	d	κ	%	d	κ
		18°			
0.00	3.43	0.016	20.71	2.00	1.272
0.54	3.39	3.165	24.58	1.83	1.256
2.20	3.20	3.913	32.42	1.58	1.084
4.88	2.98	4.008	35.05	1.51	1.037
5.06	2.97	3.242	37.74	1.45	0.934
5.82	2.90	3.003 sic	38.94	1.42	0.850
6.34	2.82	3.321	48.44	1.25	0.638
7.28	2.79	2.637	56.51	1.13	0.453
7.61	2.75	2.448	56.80	1.12	0.420
10.11	2.60	2.131	67.49	1.00	0.250
13.37	2.40	1.911	84.11	0.85	0.055
16.07	2.25	1.730			

t	κ	t	κ
67.49%		38.92%	
15.0	0.271	4.0	0.894
16.0	.264	10.0	.875
17.0	.257	14.0	.863
18.2	.250	15.0	.859
19.5	.244	18.0	.850
22.0	.226	20.0	.844
23.0	.221	24.0	.831
25.5	.209	28.0	.819
27.5	.200	31.4	.808
30.0	.190	32.5	.804
33.0	.179	24.58%	
56.80%		18.0	1.256
18.0	0.420	25.0	1.251
25.0	0.360	5.82%	
		18.0	3.003
		25.0	3.121
		2.20%	
		18.0	3.913
		21.5	4.057
		25.0	4.206

Arsenic tribromide ($AsBr_3$) + Azobenzene ($C_{12}H_{10}N_2$)

Pushin, 1948

mol%	f.t.	mol%	f.t.
0	30	70	53.5
45	40.5	80	58
50	43	90	63
60	48	100	68

Arsenic tribromide ($AsBr_3$) + Aniline hydrochloride (C_6H_8NCl)

Pushin and Löwy, 1926

mol%	f.t.	E	min.	tr.t.	min.
0	31	-	-	-	-
2	94.2	30.5	1.5	-	-
10	110.2	30.0	1.4	-	-
20	122.5	29.5	0.9	-	-
30	129.3	28.0	0.4	-	-
35	131.9	27.5	0.4	-	-
40	133.2	27.5	0.3	-	-
43	137.0	-	-	132.5	0.2
45	145.5	28	-	132.4	0.4
47	151.2	25	-	132.2	0.6
49	155.0	-	-	132.3	0.6
50	157.5	-	-	132.2	0.8
52	159.0	-	-	129.8	0.7
54	162.0	-	-	129.0	0.4
56	163.5	-	-	128.6	0.5
58	166.0	-	-	128.0	0.3

Arsenic tribromide ($AsBr_3$) + Phenylurethane ($C_7H_7O_2N$)

Pushin and Löwy, 1926

mol%	f.t.	E	mol%	f.t.	E
0	31	-	50	12.8	+0.5
10	27.7	-	60	19.7	-2.2
20	22.5	-4.4	70	29.8	-3.0
25	20.4	+0.7	80	37.8	-
30	15.6	-2.4	85	40.6	-
35	12.2	-0.5	100	48.3	-
40	6.8	-1.5			

Arsenic tribromide ($AsBr_3$) + Nitrobenzene ($C_6H_5O_2N$)

Bernstein, 1941 fig.

mol%	f.t.	mol%	f.t.
100	+5.7	50	+3
80	-7	20	+18
62.7	-16 E	0	+31.1

mol%	κ	mol%	κ	
		18°		
93.94	0.717	58.91	1.042	
91.06	1.632	45.07	1.506	
86.44	1.427	41.37	1.722	
83.10	1.317	39.60	3.184	sic
81.89	0.953	33.57	2.812	
68.06	0.324	22.00	1.347	
67.35	0.438			

Arsenic tribromide ($AsBr_3$) + Trinitrotoluene ($C_7H_5O_6N_3$)

Pushin, 1940-46

%	f.t.	E	%	f.t.	E
0	31	-	50	65	28.5
5	44.5	29	60	68	27.5
10	52	-	70	71	26
20	58.5	29.5	80	74	22
30	61	29	90	78	20
40	63	29	100	81	-

Arsenic tribromide ($AsBr_3$) + Phenol (C_6H_6O)

Pushin and Löwy, 1926

mol%	f.t.	E	min.
0	31	-	-
10	26.5	6.2	0.2
20	23.0	6.5	1.0
30	19.5	6.5	1.2
40	15.6	6.2	1.6
50	11.0	7.5	2.3
60	10.0	7.5	2.2
70	17.8	7.3	1.4
80	24.0	7.0	0.9
90	32.0	6.5	0.5
100	40.8	-	-

Arsenic tribromide ($AsBr_3$) + Resorcinol ($C_6H_6O_2$)

Pushin and Löwy, 1926

mol%	f.t.	E	min.
0	31.0	-	-
10	50.2	30.0	1.5
20	60.0	30.6	1.4
30	69.8	30.0	1.2
40	78.5	30.0	-
50	83.2	29.6	-
60	87.5	29.8	0.4
70	94.0	29.4	-
80	100.5	29.8	-
100	111.0	-	-

Arsenic tribromide ($AsBr_3$) + 1-Naphthol ($C_{10}H_8O$)

Pushin and Löwy, 1926

mol%	f.t..	E	mol%	f.t..	E
0	31.0	-	50	57.0	19.2
10	24.8	20.0	65	69.8	19.4
20	20.8	20.8	80	81.5	19.5
30	32.5	20.8	90	88.5	19.2
40	44.8	20.8	100	96.0	-

Arsenic triiodide (AsI_3) + Naphthalene ($C_{10}H_8$)

Pushin, 1948

mol%	f.t.	E	mol%	f.t.	E
0	141	-	60	126	76
12	135.5	73.5	70	120	76
20	133	73.5	86.5	101	76
30	131	74.5	97	78	78
40	130	75	100	80	-
50	129	75.5			

Arsenic triiodide (AsI_3) + Phenanthrene ($C_{14}H_{10}$)

Pushin, 1948

mol%	f.t.	E	mol%	f.t.	E
0	141	-	60	119	93.5
10	135	87	70	108	93.5
20	132	88	80	94	94
30	130	90	94.5	97	93.5
40	128	91	100	100	-
50	124.5	92			

Arsenic triiodide (AsI_3) + Iodoform (CHI_3)

Hertel, 1931

%	f.t.	%	f.t.
0	142	50	100.5
10	132.5	60	104
20	120	70	109.5
30	109	80	113.5
40	101	90	119.5
43	98 E	100	124

Arsenic triiodide trisulfide (AsI_3S_{24}) + Iodoform trisulfide (CHI_3S_{24})

Hertel, 1931

%	f.t.	m.t.
0	110	110
30	105	100
50	100	97
70	98	95
100	93	93

Antimonium trichloride ($SbCl_3$) + Monochloracetic acid ($C_2H_3O_2Cl$)

Usanovich and Sumarokova, 1951

mol%	f.t.	E	mol%	f.t.
0.00	73.2	-	49.97	47.5 (1+1)
7.34	67.5	46.0	62.62	27.5
20.95	56.0	-	68.80	41.0
23.46	51.3	46.0	75.05	46.5
30.47	46.5	-	90.26	57.5
34.44	47.3	46.0	100.00	63.5
43.74	47.0	29.0		

mol%	ϰ 50°	ϰ 60°	ϰ 70°
3.90	1.295	1.982	2.147
9.81	-	-	3.957
17.60	-	4.832	5.324
23.54	4.348	4.909	5.324
28.22	4.600	5.058	5.558
34.79	4.433	5.586	5.750
37.14	4.386	5.702	6.383
43.74	4.322	5.457	6.607
49.97	3.151	4.775	5.762
50.92	3.390	4.404	5.187
53.55	2.993	3.737	4.219
54.89	2.948	3.486	3.899
62.62	2.705	-	-
66.59	2.255	-	-
72.15	1.744	2.398	2.868
79.74	0.982	1.155	1.429
85.24	0.377	0.472	0.544

Sulfur monochloride (SCl) + Benzene (C_6H_6)

de Carli, 1929

%	f.t.	%	f.t.
100	+5	20	-60
80	0	12	-70
70	-5	8	-80
60	-10	6	-90
40	-30	5	-92 E
30	-40	3	-90
25	-50	0	-80

%	d	%	d
	20°		
0	1.6738	40	1.2290
5	.6158	50	.1550
12	.4778	60	.0880
14	.4651	75	0.9950
18	.4492	90	.9239
25	.3714	100	.8790
32	.3033		

%	η 20°	η 15.5°
0	1118	1143
5	1058	-
12	1032	-
14	1000	1044
18	977	1010
25	918	956
32	881	917
40	840	868
50	794	824
60	754	787
75	702	748
90	671	709
100	643	687

Sulfur monochloride (SCl) + Benzaldehyde(C_7H_6O)

de Carli, 1929

%	d	%	d
	20°		
0	1.6798	60	1.2411
20	.5095	70	.1911
30	.4419	80	.1426
40	.3626	90	.0504
50	.3014		

%	η 20°	η 13.2°	η 9°	η 3°
0	1118	1161	1279	1389
20	1220	1301	1398	1705
30	1266	1367	1470	1826
40	1338	1462	1562	1900
50	1383	1532	1624	1986
60	1417	1601	1710	2073
70	1465	1654	1767	2188
80	1487	1681	1818	2204
90	1595	1804	1906	2339

Sulfur monochloride (SCl) + Camphor ($C_{10}H_{16}O$)

Schlundt, 1903

%	d	$(\alpha)_C$
	20°	
0	1.6768	-
3.4362	.6345	37.30
9.8907	.5620	39.31
20.1721	.4562	42.43

Sulfur hexafluoride (SF_6) + Propane (C_3H_8)

Clegg and Rowlinson, 1955; Clegg, Rowlinson and Sutton, 1955

t	P	d_g	d_l
	0%		
50.00	16.93	0.859	10.15
60.00	20.92	1.125	9.55
70.00	25.57	1.46	8.98
75.00	28.16	1.67	8.63
80.00	30.93	1.92	8.30
85.00	33.95	2.24	7.86
90.00	37.19	2.70	7.32
95.00	40.70	3.52	6.41
96.66	41.93	4.92	4.92

d_g and d_l = density in gas and liquid (in moles/l) ; the critical points are underlined

t	dew point P	dew point d_g	bubble point P	bubble point d_l
		16.32mol%		
40.00	16.02	0.833	21.21	9.60
45.00	18.22	0.967	23.26	9.41
50.00	20.44	1.11	25.64	9.12
55.00	22.86	1.28	28.08	8.78
60.00	25.52	1.47	30.70	8.49
65.00	28.38	1.70	33.45	8.12
70.00	31.57	2.00	36.35	7.68
75.00	35.12	2.40	39.28	7.05
78.06	37.81	-	-	-
78.27	-	-	41.18	-
79.72	39.11	-	-	-
79.86	-	-	41.98	-
80.52	39.79	-	42.15	-
81.32	40.62	-	-	-
	42.29	4.67	42.29	4.67
81.91	41.39	-	-	-
	42.23	-	-	-
		32.89mol%		
25.00	13.84	0.730	19.19	9.88
30.00	15.70	0.835	21.21	9.68
34.30	17.68	0.943	23.15	9.47
40.00	20.36	1.15	25.93	9.00
45.00	22.93	1.33	28.55	8.68
50.00	25.73	1.55	31.34	8.28
55.00	28.88	1.82	34.26	7.78
60.00	32.42	2.19	37.35	7.22
65.54	37.15	-	40.55	-
66.89	38.50	-	-	-
	40.84	4.60	40.84	4.60
67.60	39.36	-	-	-
	40.93	-	-	-
67.98	39.96	-	-	-
	40.88	-	-	-
68.14	40.28	-	-	-
	40.77	-	-	-
		49.93mol%		
30.00	20.24	1.19	23.83	9.06
34.30	22.55	1.37	26.08	8.73
40.00	25.87	1.66	29.36	8.29
45.00	29.12	1.98	32.40	7.76
50.00	32.81	2.43	35.65	7.03
54.26	36.52	-	38.42	-
54.77	37.05	-	38.54	-
55.03	37.35	-	-	-
	38.59	4.66	38.59	4.66
55.35	37.72	-	-	-
	38.65	-	-	-
55.59	38.03	-	-	-
	38.71	-	-	-
55.78	38.37	-	-	-
	38.63	-	-	-
55.84	38.46	-	-	-
	38.49	-	-	-
		68.87 mol %		
21.00	20.25	1.27	21.08	9.33
25.00	22.29	1.44	23.12	9.01
30.00	25.09	1.70	25.91	8.62
34.30	27.66	1.97	28.45	8.16
39.22	30.90	2.39	31.66	7.61
40.00	31.47	-	32.18	7.55
45.00	35.24	3.34	35.71	6.46
46.39	36.45	-	36.70	-
46.59	36.76	4.87	36.76	4.87
46.66	36.69	-	-	-
	36.75	-	-	-
		81.49 mol %		
21.00	21.59	1.40	21.68	9.22
25.00	23.67	1.59	23.78	8.94
30.00	26.56	1.88	26.69	8.51
34.30	29.24	2.21	29.36	8.03
39.15	32.56	2.75	32.66	7.35
40.00	33.17	-	33.27	-
42.23	34.82	3.34	34.91	6.70
44.22	36.43	4.99	36.43	4.99
		87.70 mol %		
21.00	21.52	1.39	21.70	9.17
25.00	23.66	1.59	23.82	8.84
30.00	26.56	1.88	26.69	8.44
34.30	29.22	2.22	29.37	8.01
40.00	33.13	2.87	33.27	7.23
42.00	34.62	3.25	34.75	6.76
44.29	36.44	4.99	36.44	4.99

t	P	d_g	d_l
	100 %		
-0.11	12.48	-	-
+10.04	16.39	-	-
20.94	21.26	1.35	9.39
25.01	23.40	1.54	9.12
29.65	26.05	1.80	8.70
34.04	28.78	2.11	8.23
39.22	32.30	2.63	7.61
42.05	34.33	3.05	7.11
43.98	35.80	3.51	6.63
45.58	37.10	5.03	5.03

Sulfur hexafluoride (SF_6) + Perfluoropentane (C_5F_{12})

Newcome and Cady, 1956

mol%	p Dew point	p Bubble point
	25°	
100.0	646.5	-
94.9	681.7	1500
61.1	1045.1	-
47.8	1323.8	-
0.0	17930	-

Trichlorsilane ($SiHCl_3$) + Ether ($C_4H_{10}O$)

Sisler, Schilling and Groves, 1951 (fig.)

mol%	f.t. I	f.t. II	mol%	f.t. I	f.t. II
100	-123	-117	50	-142	-148
90	-126	-120	40	-148	-
80	-130	-122	20	-137	-
60	-139	-	0	-128	-

Trichlorsilane ($SiHCl_3$) + Tetrahydrofurane (C_4H_8O)

Sisler, Schilling and Groves, 1951 (fig.)

mol%	f.t.	E	mol%	f.t.	E
100	-109	-	50	-91	-
90	-112	-114	40	-92	-
84.7	-114.3	-114.3	20	-109	-
80	-109	-114	10	-120	-129.3
70	-97	-	3.8	-129.3	-129.3
60	-92	-	0.0	-128 (1+1)	-

Silicium tetrafluoride (SiF_4) + Trimethylamine (C_3H_9N)

Wilkins and Grant, 1953 (fig.)

mol%	f.t.	mol%	f.t.
44	81.5	67	89 (1+2)
50	81.5 (1+1)	70	88.5
56	73 E	75	87
60	84		

mol%	p	mol%	p
	0°		
0	730	66.7	10
33.3	400	71.4	400
50	10	75	700

Silicium tetrachloride ($SiCl_4$) + Benzene (C_6H_6)

Traube, 1895

%	d
20°	
100	0.87898
93.783	.90044
89.831	.91251
82.214	.93474

Silicium tetrachloride ($SiCl_4$) + Naphthalene ($C_{10}H_8$)

Pushin, 1948

mol%	f.t.	mol%	f.t.
0	-68.7	60	66.5
10	+23	70	69.5
19.5	40	81	73
30	50	85	74
40	57	100	80
50	63		

Silicium tetrachloride ($SiCl_4$) + Carbon disulfide (CS_2)

Bond and Stephens, 1929

%	sat.t.	f.t.	%	sat.t.	f.t.
0.00	-	-67.7	53.13	-5.0	-
1.02	-	-76.5	54.71	-5.1	-
1.16	-77.0	-79.2	59.15	-5.4	-
1.30	-72.4	-	62.56	-6.1	-
3.97	-46.9	-	66.68	-7.0	-
5.34	-38.6	-	69.33	-8.1	-
5.63	-37.5	-	71.25	-9.2	-
8.10	-23.2	-	76.82	-12.9	-
11.54	-20.1	-	80.66	-16.6	-
14.81	-15.0	-	84.60	-22.0	-
16.88	-12.8	-	87.63	-27.5	-
21.81	-8.8	-	89.73	-32.4	-
23.19	-8.2	-	91.65	-38.4	-
27.93	-6.3	-	93.67	-46.6	-
32.00	-5.5	-	95.31	-55.7	-
37.63	-4.9	-	95.64	-57.0	-
39.28	-4.8	-	97.17	-70.2	-
41.72	-4.8	-	97.42	-72.1	-
43.29	-4.8	-	98.03	-79.1	-77.0
45.95	-4.8	-	98.91	-	-76.5
47.45	-4.9	-			

Silicium tetrachloride ($SiCl_4$) + Chloroform ($CHCl_3$)

Lecat, 1949

%	b.t.	
0	56.5	
-	55	Az
100	61	

Siliciumtetrachloride ($SiCl_4$) + Chlortrimethyl silane (C_3H_9ClSi)

Lecat, 1949

%	b.t.	
0	56.5	
36	54.5	Az
100	57.5	

Silicium tetrachloride ($SiCl_4$) + Carbon tetrachloride (CCl_4)

Wood, 1937

L (mol%)	V (mol%)	p	p_2	p_1
		25°		
100.0	100.0	114.9	-	-
73.4	56.4	153.0	86.3	66.0
71.3	53.7	157.0	84.3	72.7
52.8	35.2	179.1	63.0	116.1
49.8	33.1	184.2	61.0	123.2
36.8	22.7	198.5	45.1	153.4
0.0	0.0	238.3	-	-

Sackmann, 1955

mol%	f.t.	m.t.	tr.t.	E
100	-22.8	-	-	-
95	29	-31.8	-60	-90
95	28.7	33	67.7	-
90	33.5	36	63	-87
87.5	33.5	42.5	63	-87
85	37.5	-	67.5	-87
83	40	46.8	65	-86
80	47.3	58	68	-86.5
80	45	55	68	-85
77.3	51.2	58	67.2	-86
75	46.5	-	69	-85.5
72.5	55	-	67.5	-86.7
70	58	-	66.5	-82
70	59	-	67.5	-86
67.5	60	-	-66	-83
65	64.5	-	-	-84.5
60	68	-	-	-82.5
55	72	-	-	-84
50	76.8	-	-	-84
45	81.2	-	-	-85
42.8	82.6	-	-	-85
40	-	-	-	-81.5
40	-	-	-	-85.5
40	-	-	-	-85
35	-	-	-	-85.5
25	82	83	-	-
25	81	83	-	-
25	76.5	-	-	-
20	78.2	-81.2	-	-
20	76	-	-	-
10	73.5	-	-	-
0	-69.7	-	-	-

Silicium tetrachloride ($SiCl_4$) + Ether ($C_4H_{10}O$)

Sisler, Batey, Pfahler and Mattair, 1948 (fig.)

mol%	f.t.	mol%	f.t.
100	-123.5	40	-84
90	-128.0 E	20	-76.5
80	-114.5	0	-69
60	-94.5		

Silicium tetrachloride ($SiCl_4$) + Diphenyl ether ($C_{12}H_{10}O$)

Sisler and Cory, 1947

mol%	f.t.	mol%	f.t.
100.0	28.0	52.4	11.0
97.6	27.0	49.7	11.0
94.6	25.5	46.5	10.0
89.6	23.5	34.2	7.0
85.1	22.0	31.2	5.5
82.2	20.5	26.6	4.5
77.7	19.0	23.3	3.0
75.8	18.0	19.8	2.0
72.8	16.5	15.5	-1.0
70.5	16.0	12.7	-4.5
66.2	14.5	5.4	-20.0
62.8	13.5	1.4	-45.0
59.6	12.5	0.7	-63.0
55.1	12.0	0.0	-62.5
53.6	12.0		

E: -63.0 (1+2) (?)

Silicium tetrachloride ($SiCl_4$) + Diethyl malonate ($C_7H_{12}O_4$)

Volnov, 1954

t	mol% L$_1$	mol% L$_2$	
-70	72.4	1.9	
-60	67.5	4.8	
-50	60.0	5.7	
-40	45.9	8.1	
-36	44.0	10.6	
-32	18.0	18.0	C.S.T.

Silicium tetrachloride ($SiCl_4$) + Tetrahydrofurane (C_4H_8O)

Sisler, Pfhaler and Mattair, 1948 (fig.)

mol%	f.t.	mol%	f.t.
100	-108.5	40	-85
83	-113 E	20	-77
80	-110	0	-69
60	-94		

Silicium tetrachloride ($SiCl_4$) + Dioxane ($C_4H_8O_2$)

Kennard and Mc Cusker, 1948

mol%	f.t.	mol%	f.t.
18.1	-11.9	62.4	1.2
22.0	-9.8	62.5	1.2
24.9	-8.3	64.0	1.6
28.2	-7.0	64.2	1.8
30.6	-6.0	66.4	2.1
34.0	-4.9	67.4	2.2
38.0	-3.9	70.3	2.8
42.2	-2.9	72.4	3.3
44.5	-2.2	73.8	3.7
47.8	-1.7	74.6	3.9
48.8	-1.4	77.0	4.5
51.9	-0.8	80.0	5.3
52.7	-0.7	82.2	6.0
54.8	-0.3	84.0	6.6
57.0	0.0	88.2	7.8
57.5	0.3	90.1	8.6
59.5	0.4	92.0	8.9
59.9	0.7	93.4	9.3
60.4	0.7	94.5	9.6
61.8	0.8	100.0	11.8
62.0	1.3		

Silicium tetrachloride ($SiCl_4$) + Acetonitrile (C_2H_3N)

Lecat, 1949

%	b.t.
0	56.5
9.4	49.0 Az
100	81.6

Silicium tetrachloride ($SiCl_4$) + Acrylonitrile (C_3H_3N)

Lecat, 1949

%	b.t.
0	56.5
11	51.2 Az
100	79.0

Silicium tetrachloride ($SiCl_4$) + Anisole (C_7H_8O)

Sisler and Cory, 1947

mol%	f.t.	E	mol%	f.t.	E
100.0	-37.5	-	48.5	-58.0	-
97.2	38.5	-	46.4	58.0	-
92.5	40.0	-	45.0	58.5	-
89.8	41.0	-	42.7	59.5	-
85.8	42.5	-	40.6	61.0	-62.0
81.4	44.5	-	38.2	61.5	-
78.4	46.0	-	36.5	61.0	-
75.4	47.0	-	33.9	60.5	-
72.1	49.0	-	30.8	60.5	-
70.0	50.0	-	27.3	61.0	-
67.4	51.5	-	21.9	62.0	-
66.5	52.0	-	19.8	63.0	-
63.8	54.5	-	16.9	64.5	-72.5
61.1	57.0	-	13.0	68.0	-72.5
59.2	59.0	-59.5	11.3	71.0	-
57.3	59.0	-59.5	9.0	70.0	-72.5
52.7	58.0	-	5.5	67.0	-
50.5	57.8	-	2.4	64.0	-
49.1	-57.7	-	0.0	-62.5	-
(1+1)	(1+2)				

Sisler, Wilson and al., 1948 (fig.)

mol%	f.t.	mol%	f.t.
100	-38	40	-48
90	-40	30	-50
80	-42.5	20	-54
70	-44	10	-62
60	-45	5	-71 E
50	-46.5	0	-69

Silicium tetrachloride ($SiCl_4$) + Phenetole ($C_8H_{10}O$)

Sisler, Wilson and al., 1948 (fig.)

mol%	f.t.	mol%	f.t.
100	-30	40	-44
93	-33	30	-45
80	-35	20	-49.5
70	-38	6	-70.5
59	-40 (2+3)	0	-69
50	-42		

Silicium tetrachloride ($SiCl_4$) + Methyl-m-cresyl-ether ($C_8H_{10}O$)

Sisler, Wilson and al., 1948 (fig.)

mol%	f.t.	mol%	f.t.
100	-55.5	40	-71
80	-63	18	-74.5 E
60	-67	0	-69

Silicium tetrachloride ($SiCl_4$) + Ethylacetoacetate ($C_6H_{10}O_3$)

Volnov, 1954

t	mol% L_1	mol% L_2
-70	74.4	2.0
-65	72.0	5.0
-50	71.0	7.7
-26	67.5	9.9
-10	64.9	11.9
+2	62.5	13.1
+10	61.0	14.4

Silicium tetrachloride ($SiCl_4$) + Azobenzene ($C_{12}H_{10}N_2$)

Pushin, 1948

mol%	f.t.	mol%	f.t.
0	-68.7	60	55
9.5	+21	69.5	59
19.5	37	80	62.5
29.5	43	87	64.5
39.0	46.5	95	66.5
47.5	50	100	68

Silicium tetrachloride ($SiCl_4$) + Ethyl alcohol (C_2H_6O)

Volnov, 1954

t	mol %	
	L_1	L_2
-70	74.3	0.1
-55	70.2	4.5
-45	67.5	5.0
-40	65.2	6.3

Wertyporoch and Altmann, 1934

M ($SiCl_4$)	ϰ	M($SiCl_4$)	ϰ
	0°		
0	0.00218	0.04150	0.1018
0.00432	.01833	.06070	.1282
.00862	.03100	.11350	.1474
.01706	.05030	.14500	.1486
.02534	.06700		

Silicium tetrachloride ($SiCl_4$) + Propyl alcohol (C_3H_8O)

Volnov, 1954

t	mol%	
	L_1	L_2
-70	65.8	11.6
-60	62.2	26.9
-51	53.4	35.3

Silicium tetrabromide ($SiBr_4$) + Dioxane ($C_4H_8O_2$)

Kennard and Mc Cusker, 1948

mol%	f.t.		E	
	I	II	I	II
0.0	+5.4	-2.3	-	-
0.7	4.7	-	-	-
2.4	3.9	-	-	-
3.2	3.7	-	-	-
4.5	2.9	-	-	-
6.8	2.0	-	-	-
8.4	1.2	-2.0	-	-
10.0	0.4	-3.2	-	-
11.1	+0.0	-	-	-
12.5	-0.8	-4.2	-	-
16.3	2.2	-5.8	-	-
18.9	3.6	-	-	-
19.8	3.9	-7.1	-	-
25.0	5.8	-	-	-13.5
25.2	6.1	-	-	-
25.5	6.3	-	-11.4	-
27.0	6.9	-	-	-
28.5	7.4	-	-	-
29.3	7.7	-	-11.4	-
31.1	8.2	-11.1	-11.4	-
32.8	9.2	-	-	-
33.0	9.0	-	-	-
33.6	9.3	-	-	-
35.8	10.5	-	-11.4	-13.5
36.7	10.4	-	-	-13.5
36.9	10.6	-	-	-
38.2	11.1	-	-11.4	-
38.7	11.2	-	-11.4	-13.5
39.6	10.8	-	-	-
40.4	10.7	-	-	-13.5
41.0	9.9	-	-	-
42.2	9.6	-	-11.4	-
43.2	8.6	-	-	-
44.5	8.0	-	-	-
46.6	7.2	-	-	-
48.3	6.5	-	-	-
50.6	6.0	-	-	-
52.5	5.4	-	-	-
52.9	5.2	-	-	-
54.6	4.5	-	-	-
56.4	4.0	-	-	-
57.9	3.6	-	-	-
59.9	3.1	-	-	-
61.2	2.7	-	-	-
63.9	2.0	-	-	-
64.8	1.6	-	-	-
66.9	1.1	-	-	-
68.9	-0.3	-	-	-
70.6	+0.1	-	-	-
73.5	0.9	-	-	-
75.5	1.7	-	-	-
77.4	2.3	-	-	-
79.1	3.0	-	-	-
80.8	3.6	-	-	-
82.4	4.3	-	-	-
86.4	6.9	-	-	-
88.0	5.6	-	-	-
89.2	6.3	-	-	-
90.9	7.5	-	-	-
92.6	8.2	-	-	-
96.6	10.0	-	-	-
97.3	10.4	-	-	-
99.6	11.5	-	-	-
100.0	11.8	-	-	-

LXXI. OXIDES, ACIDS AND SALTS + ORGANIC COMPOUNDS .

Sulfur dioxide (SO_2) + Methane (CH_4)

Dean and Walls, 1947

mol% L	mol% V	P	P_1	P_2	sol.*
		28.3°			
3.48	83.9	35.0	29.4	5.6	12.6
1.52	70.8	17.2	12.2	5.0	5.4
		-32.1°			
3.26	98.7	35.0	34.5	0.5	11.8
1.76	97.9	18.7	18.3	0.4	6.3
1.65	97.2	17.0	16.5	0.5 sic	5.9

* cc CH_4 gaz in 1 g SO_2

Kuenen absorption coefficient solubility per 1 atm. CH_4, at -32.1° = 0.35

Sulfur dioxide (SO_2) + Ethane (C_2H_6)

Mund and Herrent, 1924

P	tot.vol. L	vol.liq.	P	tot.vol. V	vol.liq
			88.7 mol%		
			27°		
19.32	1055.9	-	40.94	300.5	3.0
20.61	974.9	-	41.99	216.5	31.2
23.25	835.4	-	43.16	105.8	78.0
25.59	693.5	-	43.41	96.8	78.9
30.58	566.9	-	43.76	86.6	-
39.39	464.0	-	43.88	86.0	-
40.27	327.5	-	45.09	85.1	-
40.54	318.2	-	46.14	84.5	-

* volumes are in mm_3

P	tot.vol. L	vol.liq.	P	tot.vol. V	vol.liq
			32°		
19.64	1062.8	-	46.78	179.0	31.8
21.19	971.6	-	47.65	117.8	78.9
23.95	830.0	-	48.05	104.4	87.0
26.96	702.5	-	48.15	96.2	-
31.20	575.0	-	48.29	95.0	-
35.96	456.5	-	48.58	94.7	-
42.46	321.8	-	48.87	93.8	-
45.05	269.9	-	59.58	83.9	-
45.00	243.5	5.7	69.97	80.0	-
46.48	216.5	13.8			
			35°		
21.30	984.5	-	49.62	173.0	28.5
24.08	843.5	-	50.62	118.1	-
27.63	702.5	-	50.79	115.4	-
31.96	572.0	-	51.10	108.5	-
37.72	434.9	-	51.65	101.0	-
47.78	243.5	-	52.34	99.2	-
49.28	199.7	5.7	70.66	83.0	-
			36°		
20.06	1061.3	-	49.65	210.8	-
21.65	966.5	-	50.21	192.5	1.8
24.57	824.0	-	50.87	158.0	37.5
27.90	695.0	-	51.18	134.0	-
31.72	581.0	-	51.85	119.6	-
37.43	446.0	-	59.55	91.7	-
44.68	309.8	-	-	-	-
			37°		
21.76	971.0	-	44.92	315.5	-
24.30	739.3	-	50.54	206.0	-
27.58	710.9	-	55.82	99.5	-
32.55	564.5	-	84.97	81.2	-
37.65	447.5	-	-	-	-
			40°		
20.31	1067.0	-	37.75	459.8	-
21.94	972.5	-	44.83	333.5	-
24.69	840.8	-	53.60	183.5	-
28.48	693.5	-	73.25	86.9	-
83.04	561.5	-	84.68	83.9	-
			73.6 mol%		
			35°		
21.22	1152.5	-	38.70	410.6	9.9
22.86	1050.5	-	39.25	390.8	10.9
24.57	950.3	-	41.72	299.0	12.6
24.95	930.2	-	43.54	219.5	48.0
25.33	908.0	-	44.66	161.0	72.0
26.47	826.4	-	44.97	150.8	76.8
27.36	807.5	-	45.77	107.0	95.7
27.87	781.1	-	45.86	102.5	96.5
28.32	760.1	-	46.01	98.6	-
28.42	756.5	-	46.14	98.0	-
29.80	707.0	-	47.31	97.4	-
30.22	684.5	-	48.79	96.2	-
30.51	671.0	0.3	49.61	96.1	-
31.62	631.4	0.6	53.53	93.5	-
34.32	543.5	2.8	53.60	93.4	-
35.04	518.9	3.9	55.36	92.0	-
			57.61	91.8	-
			42°		
22.26	1139.0	-	42.36	398.0	5.4
23.86	1031.6	-	47.88	263.6	28.5
24.25	1028.0	-	50.26	162.2	70.2
26.98	843.0	-	50.55	157.1	75.0
28.87	802.1	-	51.22	133.4	77.4
29.43	791.0	-	51.55	116.0	105.5
32.33	681.5	-	51.90	110.0	-
33.66	637.1	-	52.21	107.9	-
36.68	542.9	-	52.99	107.0	-
37.83	512.6	0.6	55.42	105.2	-
42.83	401.0	4.5	64.49	98.0	-
			47°		
22.23	1175.0	-	50.83	263.0	16.5
24.55	1040.0	-	54.74	162.5	64.5
27.48	899.0	-	55.09	148.4	74.6
30.51	781.1	-	55.46	134.0	108.0
34.32	647.9	-	55.07	123.5	-
35.00	638.0	-	56.30	122.0	-
38.89	524.0	-	59.43	116.0	-
43.89	413.0	-	59.60	115.7	-
46.45	359.0	3.0	64.82	107.0	-

50°

22.85	1158.2	-	53.62	251.9	11.1
24.96	1040.0	-	55.34	215.0	22.5
26.91	935.0	-	57.61	158.6	66.6
27.85	900.0	-	57.75	147.2	-
31.07	782.0	-	57.97	145.7	-
35.78	635.0	-	58.41	136.7	-
41.21	500.0	-	59.27	131.3	-
45.25	416.0	-	64.47	114.5	-
46.56	390.5	1.1	69.85	109.1	-
47.56	370.1	2.1	73.29	104.0	-
52.08	284.0	7.5	84.24	99.5	-

51° (critical)

22.74	1165.1	-	53.58	263.0	4.2
24.89	1046.6	-	57.56	179.0	8.4
27.74	908.0	-	58.34	158.6	77.4
31.01	785.0	-	58.56	152.3	-
35.74	641.0	-	58.77	150.8	-
41.16	507.5	-	59.23	144.8	-
46.03	408.5	-	61.93	127.7	-
47.33	385.1	-	67.10	113.3	-
48.83	356.3	-	58.63	173.0	-
48.89	365.0	-	59.47	158.9	-
51.90	310.1	-	61.79	135.8	-
53.67	276.6	1.5	65.32	121.4	-
55.72	234.0	5.4	78.62	104.0	-
58.24	187.1	11.1			

52°

48.89	365.0	-	58.63	173.0	-
51.90	310.1	-	59.47	158.9	-
53.67	276.6	1.5	61.79	135.8	-
55.72	234.0	5.4	65.32	121.4	-
58.24	187.1	11.1	78.62	104.0	-

53°

48.71	374.9	-	59.11	187.7	-
53.77	285.2	-	59.43	179.0	-
54.98	264.5	-	60.44	164.6	-
56.13	244.1	-	61.77	148.4	-
57.84	218.0	4.5	63.23	135.8	-
58.26	212.0	5.7	64.66	128.3	-
58.48	209.0	3.6	77.63	107.0	-
58.64	195.2	-			

54°

36.42	632.0	-	59.41	203.6	-
40.10	542.0	-	61.79	159.5	-
42.26	498.5	-	66.96	125.0	-
46.68	419.0	-	72.93	113.0	-
49.86	362.0	-	80.23	107.0	-
54.98	279.5	-	86.39	102.9	-
58.64	218.0	-			

40.4 mol%

35°

16.07	1028.0	3.0	40.21	111.5	50.4
17.44	895.1	5.1	41.30	74.0	57.0
18.88	778.4	7.8	41.54	70.1	59.6
20.57	674.1	9.9	42.13	60.8	-
24.21	515.3	10.8	42.38	60.2	-
28.37	386.4	17.1	42.84	60.1	-
34.33	255.5	23.4	67.12	59.0	-

42°

16.07	1214.0	-	45.91	74.9	65.4
17.42	1043.0	-	46.37	66.5	66.0
18.62	929.0	3.0	46.61	65.9	-
20.50	784.1	6.6	46.77	65.0	-
22.49	668.3	8.4	46.89	64.7	-
25.66	533.0	13.5	47.19	64.4	-
30.51	387.2	27.7	48.68	63.8	-
36.69	258.2	33.7	76.16	32.3	-
44.83	102.5	62.2			

47°

17.05	1228.1	-	47.34	113.0	54.0
17.62	1155.1	-	49.36	74.6	64.1
18.02	1107.5	-	49.94	67.7	-
18.65	1035.5	-	50.21	66.8	-
21.84	777.5	5.4	50.46	66.5	-
24.19	651.5	9.0	59.47	66.2	-
31.09	410.0	17.0	76.33	65.3	-
38.33	263.0	27.0			

55°

19.06	1185.5	-	41.26	263.9	24.0
20.56	1073.3	-	51.85	123.5	49.5
21.95	936.8	-	54.33	83.9	63.3
23.87	794.0	3.6	55.07	73.4	-
26.98	624.0	7.5	55.42	71.0	-
29.45	533.0	10.5	56.23	71.0	-
34.34	398.0	15.6	87.35	66.5	-

63°

23.43	989.0	-	55.29	146.6	38.1
26.46	788.3	-	60.07	92.3	63.3
28.28	691.4	-	60.95	81.2	70.7
31.59	558.2	2.7	61.56	75.2	-
37.34	396.8	8.4	61.90	74.9	-
43.41	291.8	16.8	64.53	74.6	-
47.22	239.6	21.6	84.41	71.0	-

71°

26.65	911.6	-	64.43	105.5	60.0
28.28	803.0	-	66.52	83.9	-
31.62	671.3	-	66.94	82.1	-
35.08	546.8	2.4	67.03	81.2	-
41.30	384.5	10.5	68.06	81.0	-
47.30	284.9	17.4	69.88	80.0	-
57.56	171.5	31.5	84.29	74.9	-

78°					
24.19	1035.5	-	68.55	105.2	70.2
30.51	770.9	-	69.74	95.0	77.9
35.06	635.0	-	70.35	89.6	-
37.43	556.7	-	71.06	89.3	-
39.25	502.4	2.4	72.34	88.1	-
43.50	404.0	8.1	76.27	86.0	-
51.79	270.5	18.9	84.24	83.0	-
64.41	145.4	44.4			
85°					
23.21	1144.4	-	68.77	148.1	36.6
27.41	934.1	-	70.52	134.9	42.9
31.10	794.3	-	72.49	116.9	50.4
35.08	672.8	-	74.44	104.0	83.0
40.19	551.0	-	74.82	101.0	-
46.05	422.9	1.4	76.40	97.1	-
48.85	369.5	4.5	80.40	92.3	-
55.44	272.0	9.9	84.39	84.3	-
67.10	161.6	29.1			
87°					
57.65	262.4	13.5	75.87	105.2	-
68.79	158.6	32.4	76.45	103.1	-
73.85	120.5	51.9	80.42	98.0	-
75.13	110.0	75.0	84.42	92.6	-
75.54	106.4	-			
91°					
23.47	1181.0	-	75.85	126.5	52.5
26.02	1046.0	-	76.93	117.4	67.4
30.44	857.0	-	77.10	115.4	-
35.83	691.4	-	77.27	114.5	-
41.35	566.6	-	77.98	112.4	-
50.13	402.5	-	80.39	107.0	-
57.83	288.5	10.5	84.39	106.4	-
72.84	145.7	35.7			
93°					
54.47	281.0	5.4	77.74	125.0	-
72.96	159.2	23.7	77.88	124.1	-
76.35	133.4	30.9	80.32	115.7	-
77.10	127.4	32.4	84.32	106.7	-
77.53	126.8	33.3			
95°					
26.88	1034.0	-	76.40	143.9	32.4
33.60	781.7	-	77.30	132.8	34.8
39.23	644.3	-	78.01	130.7	38.7
43.53	542.9	-	78.40	127.7	-
51.85	406.4	-	78.82	127.1	-
55.39	353.3	-	80.40	121.4	-
61.89	268.7	8.4	84.39	110.0	-
97°					
44.65	530.0	-	78.28	139.4	17.4
55.84	356.9	-	78.56	138.5	13.5
62.30	280.4	6.9	78.62	135.5	-
65.37	245.3	9.3	79.61	130.4	-
76.35	152.9	22.5	81.07	127.1	-
77.30	148.1	23.1	84.32	116.0	-
77.96	141.5	21.0			
99°					
53.58	398.3	-	78.36	152.6	3.3
64.51	264.3	1.2	78.86	149.0	-
67.10	245.0	4.2	79.67	144.8	-
76.45	163.1	9.6	81.13	137.0	-
78.02	153.5	6.0	84.32	124.7	-

Sulfur dioxide (SO_2) + Butane (C_4H_{10})

Seyer and Todd, 1931

mol%	sat.t.	mol%	sat.t.
4.7	-26.0	61.6	-15.0
14.1	-8.0	63.9	-16.0
26.4	-4.7	66.1	-17.2
30.7	-5.1	90.83	-64
43.6	-6.8		

C.S.T.: 30mol%(28.4wt%) 1.25 atm.(P_1) -4.7°

Lecat, 1949

%	b.t.	P
0	-10.0	1
35.6	+3	2.65
36.8	-5	1.89
39.0	-18	1
40.5	-35	0.46
100	-0.6	1

Sulfur dioxide (SO_2) + Isobutane (C_4H_{10})

Lecat, 1949

%	b.t.	P	
0	-10.0	1	Az
45.1	+ 3	3.17	"
100	-12.4	1	

Sulfur dioxide (SO_2) + Pentane (C_5H_{12})

Leslie, 1934

mol%	sat.t.	mol%	sat.t.
10	0	50	0
20	2.0	60	-4
30	2.0	70	-12
40	1.5		

C.S.T. = 2°

Sulfur dioxide (SO_2) + Hexane (C_6H_{14})

Bingham, 1907

C.S.T. = 14°

Timmermans and Kohnstamm, 1909-10

C.S.T. = 11.9 dt/dp (10-130 Kg) = +0.023

Seyer and Gill, 1924

%	sat.t.	%	sat.t.
100.0	-93.7	41.0	+10.1
88.8	-31.1	32.4	10.1
88.4	-29.8	18.5	9.8
88.0	-28.1	11.75	9.1
84.1	-19.1	7.3	8.6
75.5	-3.3	5.3	+7.2
69.3	+3.1	3.3	-20.4
61.5	7.0	1.0	-61.3
57.3	7.1		

Seyer and Todd, 1931

mol%	sat.t.	mol%	sat.t.
82.1	-53	26.3	+10.8
72.5	-22	14.5	9.8
70.0	-17	10.0	6.5
46.0	+8	8.3	3.8
42.0	9.9	7.5	2.5
36.5	10.6	3.5	-10
35.0	10.0	2.5	-20

C.S.T.: 28mol%(34.3wt%) 2.26 atm.(P_1) 10.2°

Leslie, 1934

mol%	sat.t.	mol%	sat.t.
10	10	50	10.2
20	12	60	10
30	11	70	9.75
40	10.5	80	-15

C.S.T. = 12°

Sulfur dioxide (SO_2) + 2-Methylpentane (C_6H_{14})

Leslie, 1934

mol%	sat.t.	mol%	sat.t.
10	8	50	10
20	10	60	3
30	10	70	-12
40	10		

C.S.T. : 10°

Sulfur dioxide (SO_2) + Heptane (C_7H_{16})

Leslie, 1934

mol%	sat.t.	mol%	sat.t.
10	19	59	19
20	19	60	18
30	19	70	9
40	19	80	-30

C.S.T. : 19°

Sulfur dioxide (SO_2) + 2-Methylhexane (C_7H_{16})

Leslie, 1934

mol%	sat.t.	mol%	sat.t.
20	18	60	18
30	18	70	10
40	18	80	-2
50	18	90	-18

C.S.T. = 18°

Sulfur dioxide (SO_2) + Octane (C_8H_{18})

Seyer and Todd, 1931

C.S.T.: 24mol%(36wt%) 4.07 atm.(P_1) 26.9°

Leslie, 1934

mol %	sat.t.	mol %	sat.t.
10	24	50	25
20	24.5	60	15
30	24.5	70	- 2
40	25	80	-15

C.S.T. = 25.5°

Sulfur dioxide (SO_2) + 2-Methylheptane (C_8H_{18})

Leslie, 1934

mol%	sat.t.	mol%	sat.t.
10	24	50	24
20	24	60	20
30	24	70	2
40	24		

C.S.T. : 24°

Sulfur dioxide (SO_2) + Nonane (C_9H_{20})

Leslie, 1934

mol %	sat.t.	mol %	sat.t.
10	32	50	28
20	32	60	23
30	31.75	70	0
40	31		

C.S.T. = 32°

Sulfur dioxide (SO_2) + Decane ($C_{10}H_{22}$)

Bingham, 1907

C.S.T. = 32°

Seyer and Todd, 1931

mol%	sat.t.	mol%	sat.t.
86.7	-23	18.7	37.3
70.2	0.0	17.3	37.2
65.0	7.5	7.0	34.4
60.0	14.1	6.5	33.8
49.5	26.0	5.91	32.8
45.4	29.0	1.0	0.4
26.2	37.0		

C.S.T.: 17 mol%(31.15 wt%) 5.61 atm.(P_1) 37.3°

Leslie, 1934

mol%	sat.t.	mol%	sat.t.
10	37	50	22
20	37	60	70
30	36	70	-10
40	35.5		

C.S.T.: 36.5°

Sulfur dioxide (SO_2) + Isodecane ($C_{10}H_{22}$)

Timmermans and Kohnstamm, 1909-10

C.S.T. = 34.1 dt/dp (10-130 Kg) = +0.03

Sulfur dioxide (SO_2) + Undecane ($C_{11}H_{24}$)

Leslie, 1934

mol%	sat.t.
10	42
20	42
30	42
40	40
50	27

C.S.T.: 42°

Sulfur dioxide (SO_2) + Dodecane ($C_{12}H_{26}$)

Seyer and Todd, 1931

mol%	sat.t.	mol%	sat.t.
74.3	-1.0	24.8	44.0
60.8	14.5	19.6	45.3
45.7	31.1	12.2	47.3
49.4	36.0	8.2	46.4
35.0	40.3	5.0	41.8
29.5	41.6	2.2	30.2

C.S.T.: 14 mol% 7.53 atm.(P_1) 47.3°

Leslie, 1934

mol%	sat.t.	mol%	sat.t.
10	47	50	32
20	44	60	26
30	41	70	13
40	38		

C.S.T.: 47°

Sulfur dioxide (SO_2) + Tetradecane ($C_{14}H_{30}$)

Zerner, Weisz and Opalski, 1922

%	sat.t.	%	sat.t.
0.43	-2	11.38	above 56
1.20	+17.5	63.77	56
2.36	30	71.86	45.75
3.52	34.75	81.76	34.75
6.03	44	94.82	below 0

Seyer and Todd, 1931

mol%	sat.t.	mol%	sat.t.
0.4	11.5	15	55.4
0.6	21.6	22.6	53.4
2.3	44.7	39.6	40.5
5.2	52.7	46	33.7
5.7	53.7	57.5	26.0
9.0	55.1	62.6	16.9
10.1	55.3	98.2	2.6
14.0	55.5		

C.S.T.: 11 mol% 9.38 atm.(P_1) 55.5°

Sulfur dioxide (SO_2) + Dotriacontane ($C_{32}H_{66}$)

Seyer and Todd, 1931

mol%	f.t.	mol%	sat.t.
17.1	60.1	0.2	75
22.2	63.1	0.9	103.5
43.3	64.5	1.2	103.3
43.6	64.3	1.7	108
		2.6	110
		5.3	104
		5.4	101
		9.1	79

C.S.T.: 2.6 mol% 34 atm.(P_1) 110°

Sulfur dioxide (SO_2) (b.t. = -10.0°)
+ Hydrocarbons

Lecat, 1949

2nd comp.			Az		
Name	Formula	b.t.	%	b.t.	P
Butene-1	(C_4H_8)	-6.7	41.7	-16	1
		-	40.7	+3	2.37
Butene-2	(C_4H_8)	+1	31.6	-14	1
trans		-	32.5	-29	0.46
Butene-2	(C_4H_8)	+3.7	31.5	-13	1
as.		-	27.7	+3	2.05
Isobutene	(C_4H_8)	-6.7	46.0	-30	0.46
		-	44.2	-14	1
		-	46.0	0	1.88
		-	36.0	+3	2.24

Sulfur dioxide (SO_2) + Caprylene (C_8H_{16})

Seyer and Hodnett, 1936

mol%	sat.t.	f.t.	mol%	sat.t.	f.t.
0.0	-	-75.4	26.98	-17.0	-75.8
0.50	-	75.8	30.38	17.8	-
0.69	-	76.2	36.20	20.0	-
1.12	-62.7	75.6	38.19	25.2	75.8
2.61	36.0	-	48.76	32.8	-
3.87	31.0	75.6	58.39	-47.1	76.0
5.78	25.6	-	69.37	-	75.8
8.87	20.5	75.8	81.19	-	88.4
12.83	17.3	75.8	84.02	-	89.5
16.14	16.9	75.6	85.32	-	93.2
19.21	16.4	75.6	87.35	-	97.7
19.73	16.7	75.8	96.29	-	105.6
23.65	16.9	-76.0	99.798	-	105.4
23.99	-16.8	-	100.00	-	-105.2

Sulfur dioxide (SO_2) + Cetene ($C_{16}H_{32}$)

Seyer and Hugget, 1924

%	sat.t.	%	sat.t.
100.00	+3.5	44.73	42.5
79.23	9.5	35.13	42.7
69.16	20.5	17.40	42.6
61.90	28.1	6.64	32.1
53.42	34.8	3.97	24.0
50.19	38.4		

Sulfur dioxide (SO_2) + Methylcyclopentane (C_6H_{12})

Leslie, 1934 (fig.)

mol%	sat.t.	mol%	sat.t.
10	18	40	18
20	18	50	18
30	18	60	2

C.S.T.: 18°

Sulfur dioxide (SO_2) + Cyclohexane (C_6H_{12})

Seyer and Dunbar, 1922

%	f.t.	%	sat.t.
98	-4.2	82	-1.0
96	-17.0	78	+1.5
82	-17.0	64.9	11.0
3.3	-24.2	59.1	11.3
2.5	-34.2	40.8	13.5
1.0	-56.0	34.6	13.3
0.8	-60.0	16.8	8.8
0.5	-64.5	12.1	4.1
		7.8	-6.0
		6.0	-8.3

Leslie, 1934 (fig.)

mol%	sat.t.	mol%	sat.t.
10	12	50	12
20	12	60	12
30	12	70	4
40	12		

C.S.T.: 12°

Francis, 1944

C.S.T.: 13°

Sulfur dioxide (SO_2) + Methylcyclohexane (C_7H_{14})

Leslie, 1934 (fig.)

mol%	sat.t.	mol%	sat.t.
10	16	50	15
20	16	60	14
30	15	70	7
40	15	80	- 8

C.S.T.: 15°

Francis, 1944

C.S.T.: 16°

Sulfur dioxide (SO_2) + Ethylcyclohexane(C_8H_{16})

Leslie, 1934 (fig.)

mol%	sat.t.	mol%	sat.t.
10	24	50	24
20	25	60	21
30	25	70	10
40	25		

C.S.T.: 25°

Sulfur dioxide (SO_2) + Hexahydromesitylene (C_9H_{18})

Leslie, 1934

mol%	sat.t.	mol%	sat.t.
10	29	50	30
20	30.5	60	29
30	30	70	16
40	30		

C.S.T.: 30.5°

Sulfur dioxide (SO_2) + Cyclohexene (C_6H_{10})

Seyer and King, 1933

mol%	f.t.	mol%	f.t.
0	-75.43	66.9	-84.3
1.80	75.9	76.7	89.7
8.22	77.5	77.8	90.3
12.8	77.8	80.5	93.9
17.5	78.2	81.5	97.2
20.0	78.5	87.3	103.4
35.5	79.0	87.7	106.7
42.7	79.6	89.5	110.1
44.6	79.9	93.5	107.1
53.6	81.7	95.7	106.5
57.9	-82.2	100.0	-103.9

Sulfur dioxide (SO_2) + Decaline ($C_{10}H_{18}$)

Zerner, Weisz and Opalski, 1922

%	sat.t.	%	sat.t.
1.62	-14.5	13.80	38
2.86	+0.5	27.34	50.75
5.53	18	52.48	51.50
9.72	28.5	81.39	22.25

Seyer and Cornett, 1937

mol%	f.t.	sat.t.	mol%	f.t.	sat.t.
100.0	-35.5	-	29.77	-39.9	41.35
91.23	37.5	-14.90	22.28	40.4	41.80
79.07	37.3	3.95	13.42	40.9	41.65
64.96	38.3	25.20	9.22	41.1	39.95
55.30	38.4	32.60	4.85	41.3	26.80
48.33	37.9	35.50	3.63	41.9	22.40
39.37	-39.6	41.40	0.00	-75.4	-

Francis, 1944

C.S.T.: 42°

Sulfur dioxide (SO_2) + Tetraline ($C_{10}H_{12}$)

Zerner, Weisz and Opalski, 1922

%	sat.t.	%	sat.t.
9.1	-14.5	48.9	+22.0
19.1	- 0.5	70.0	+18.5
47.3	+22.5		

De Carli, 1926

%	f.t.	E	%	f.t.	E
100.00	-36.3	-	50.80	-66.2	-
93.40	42.3	-	48.23	67.5	-
92.30	45.3	-	47.30	69.0	-
87.90	53.3	-	45.30	72.3	-
82.40	61.8	-64.0	44.00	70.5	-
79.90	64.3	64.5	42.80	70.0	-
77.80	61.5	64.3	40.60	70.7	-
77.40	61.2	64.0	39.00	71.6	-76.0
75.60	60.5	64.0	37.80	72.0	76.0
70.50	58.5	-64.0	33.70	73.0	76.0
67.40	58.0	-	32.00	73.5	76.0
66.60	58.5	-	29.60	74.0	76.0
61.00	60.9	-	28.20	75.0	76.0
60.80	61.2	-	26.20	75.5	-
55.60	65.0	-	24.20	76.5	-
55.40	52.2 (?)	-	22.12	75.0	76.0
54.70	66.5	-	19.50	74.5	-
52.50	69.3	-	15.70	73.6	-76.0
51.60	67.2	-	8.30	73.0	-
51.50	-66.8	-	0	-72.3	-
(1+1)		(2+1)	(3+1)		

Sulfur dioxide (SO_2) + Benzene (C_6H_6)

Mazzetti and De Carli, 1926

%	f.t.	E	%	f.t.	E
100.0	5.6	-			
87.64	0	-	36.31	-40	-
87.00	-0.3	-	33.27	-43	-64
86.82	-0.5	-	33.14	-42	-61
80.64	-4	-34	31.68	-47	-62
76.93	-9	-	31.02	-48	-62
76.34	-9.5	-	30.19	-58	-
73.26	-13	-	29.94	-59	-64
69.00	-17.5	-30	29.08	-56.5	-
64.80	-18.5	-30	28.24	-54	-
62.52	-22.4	-	27.02	-52.3	-70
57.44	-29	-	25.22	-54	-74
57.03	-23	-32	23.40	-54.8	-74
56.97	-24	-32	19.91	-59	-
55.04	-18	-	16.68	-64	-
53.20	-15	-	15.00	-68	-
51.95	-18	-49	13.20	-73	-79
47.93	-25	-52	11.75	-76.5	-78.4
45.00	-30	-55	10.87	-77.5	-78.5
42.91	-38	-52	10.12	-77.7	-79
41.31	-45	-55	8.36	-75	-78
39.83	-52	-	7.06	-75.5	-79
38.02	-44	-52	5.12	-73	-80
(1+1)	(2+1)	(3+1)	0.0	-72.5	-

Seyer and Peck, 1930

%	f.t.
0	-75.43
5.5	-77.4
22.0	-61.1
46.0	-41.0
62.6	-26.5
77.7	-13.6
100.0	+ 5.4

Lewis, 1925

%	d	%	d
	25°		
100.00	0.8714	51.67	1:0747
80.76	.9370	50.44	.0672
74.17	.9627	26.79	.1889
57.18	1.0351	26.39	.1914
52.58	.0570	0.00	.3667

Seyer and Peck, 1930

t	d	%	d
77.7%		62.69%	
-10	0.9926	-30	1.0761
0	.9799	-20	.0625
10	.9662	-10	.0491
20	.9543	0	.0358
30	.941	10	.0221
40	.929	20	.008
50	.916	30	0.994
60	.904	40	.980
70	.892	50	.967
80	.879	60	.954
		70	.938
		80	.923
46.01%		22.07%	
-30	1.1191	-60	1.2969
-20	.1044	-50	.2812
-10	.0897	-40	.2630
0	.0741	-30	.2468
10	.0585	-20	.2313
20	.047	-10	.2149
30	.037	0	.1962
40	.026	10	.1784
50	.013	20	.160
60	.001	30	.141
70	0.985	40	.122
80	0.977	50	.103
		60	.083
		70	.062
		80	.040

Lewis, 1925

%	η	%	η
	25°		
100	594.3	50.44	376.5
80.76	490.8	26.39	303.2
52.58	379.8	0	255.9

Seyer and Peck, 1930

t	σ	t	σ
77.7%		62.69%	
-10	31.83	-30	33.79
0	30.16	-20	32.08
10	28.61	-10	30.40
20	27.16	0	28.76
30	25.72	10	26.95
40	24.30	20	25.59
50	22.90	30	24.09
60	21.57	40	22.53
70	20.08	50	21.21
80	18.75	60	19.73
		70	18.29
		80	16.95
46.01%		22.07%	
-30	33.50	-60	38.72
-20	31.45	-50	36.79
-10	29.52	-40	34.91
0	27.84	-30	33.19
10	26.04	-20	31.38
20	24.42	-10	29.53
30	22.90	0	27.57
40	21.39	10	25.78
50	19.79	20	23.88
60	18.26	30	22.06
70	16.84	40	20.31
80	15.33	50	18.56
		60	16.76
		70	14.95
		80	13.23

Sulfur dioxide (SO_2) + Toluene (C_7H_8)

Lloyd, 1908

t	c*	t	c*
760 mm			
20	21.75	40	9.36
25	17.04	50	7.72
30	12.44	60	5.47

*c = g SO_2 in 100 cc

Zerner, Weisz and Opalski, 1922

%	sat.t.	%	sat.t.
7.05	-25	65.44	21
27.93	+7	75.79	21
45.50	13.5	78.36	17

De Carli, 1926

%	f.t.	E	%	f.t.
55.21	-96	-102	32.10	-80.5
50.67	93	-102	29.50	81.4
46.92	89.9	-102	28.29	80.7
43.52	88.2	-101	27.10	80.4
41.50	85.8	-	25.85	79.6
40.64	85.5	-	25.00	79.4
39.40	85.6	-	23.35	79.0
39.00	85.7	-	19.60	78.5
38.13	85.9	-	17.50	77.7
37.80	85.0	-	15.80	77.0
36.70	83.5	-	13.22	76.5
35.50	82.0	-	8.50	74.8
35.00	81.5	-	4.20	73.5
33.00	-81.0	-	0	-72.5
		(2+1)	(3+1)	

Lewis, 1925

%	d	%	d
25°			
100.00	0.8602	52.00	1.0527
74.72	.9527	47.34	.0858
72.76	.9592	35.00	.1422
71.96	.9622	27.95	.1827
70.46	.9721	21.43	.1872
52.92	1.0477	0.00	.3667

%	η	%	η
25°			
100	551.2	52.00	389.6
74.72	463.7	27.95	310.7
72.76	459.8	21.43	306.0
71.96	455.8	0.00	255.9
52.92	390.5		

Sulfur dioxide (SO_2) + Ethylbenzene (C_8H_{10})

De Carli, 1926

%	f.t.	E	%	f.t.	E
100.00	-93.0	-	45.50	-79.8	-
79.00	108.0	-	44.94	78.5	-
75.16	109.5	-	44.00	80.0	-82.5
70.70	104.5	-	43.25	82.2	-
67.47	101.0	-	41.00	81.8	82.0
65.93	96.0	-	39.50	81.0	82.0
65.36	95.6	-	37.30	80.0	82.5
63.08	91.8	-	36.60	79.7	82.0
62.01	91.0	-	31.60	78.7	82.0
61.20	91.2	-	30.32	78.2	82.2
60.87	92.5	-93.5	27.58	77.5	82.0
59.20	92.8	93.4	25.90	77.1	82.2
58.50	90.0	93.0	23.35	76.8	-82.2
56.17	88.5	93.0	21.30	76.4	-
55.45	88.0	93.0	18.87	76.0	-
55.04	87.0	87.0	16.90	75.5	-
53.71	83.2	83.2	12.30	75.0	-
50.61	81.8	81.8	8.80	74.2	-
49.20	80.0	80.0	0.00	-72.3	-
47.70	-79.6	-79.6			
			(1+1)	(2+1)	

Sulfur dioxide (SO_2) + o-Xylene (C_8H_{10})

Seyer, Martin and Hodnett, 1937

mol%	f.t.	mol%	f.t.
100.00	-27.1	38.67	-53.0
92.12	31.0	27.89	60.0
92.27	31.2	17.42	66.1
83.87	34.4	10.13	72.0
79.73	36.5	8.50	72.7
77.92	36.8	3.00	77.0
62.61	41.2	2.30	78.1
57.33	44.3	1.61	78.3
51.56	47.5	1.18	78.7
41.31	-51.4	0.55	-76.4

Sulfur dioxide (SO_2) + m-Xylene (C_8H_{10})

Seyer, Martin and Hodnett, 1937

mol%	f.t.	mol%	f.t.
100.00	-53.6	11.11	-73.5
89.70	54.9	6.93	75.5
77.48	54.7	5.22	76.4
65.74	59.8	4.35	76.6
45.18	64.0	1.01	76.9
42.45	64.7	0.82	76.2
28.68	68.1	0.54	-75.7
21.38	-70.7		

Sulfur dioxide (SO_2) + p-Xylene (C_8H_{10})

Seyer, Martin and Hodnett, 1937

mol%	f.t.	mol%	f.t.
100.00	+13.2	42.48	-26.3
88.14	+8.9	38.64	29.3
86.19	+6.9	36.07	34.1
85.80	+4.8	28.93	41.4
83.73	+4.3	19.30	51.2
75.33	+0.8	15.30	57.6
73.29	-1.1	10.10	64.2
66.01	-6.1	1.10	76.8
55.25	-12.9	0.03	-75.9
50.01	-17.6		

Sulfur dioxide (SO_2) + Pseudocumene (C_9H_{12})

De Carli, 1926

%	f.t.	E	%	f.t.	E
100.00	-54.5	-	42.04	-74.0	-81.7
92.50	63.5	-	40.74	76.0	82.6
90.64	64.8	-71.0	36.00	77.4	82.0
86.23	71.0	-71.5	34.25	80.5	82.0
80.68	67.6	-71.0	31.86	82.0	82.0
76.35	65.5	-71.0	30.00	81.0	82.0
69.78	60.0	-	25.45	78.5	-82.0
64.81	61.0	-	21.50	77.4	-
60.53	62.2	-	15.00	75.0	-
56.95	64.5	-	9.25	74.2	-
53.50	67.2	-	5.00	73.0	-
50.40	68.4	-	0.00	72.3	-
45.95	71.8	-81.5			
			(1+1)		

Sulfur dioxide (SO_2) + Mesitylene (C_9H_{12})

De Carli, 1926

%	f.t.	E	%	f.t.	E
100	-56.8	-	51.62	-53.0	-76.0
94.70	66.8	-72.5	47.72	56.9	76.9
92.40	71.3	72.0	44.45	58.7	77.0
89.90	72.2	72.5	43.05	59.0	77.4
85.89	66.5	72.3	39.33	60.4	77.4
83.95	63.0	72.0	34.57	65.5	77.4
80.23	59.5	72.2	29.88	66.2	77.3
77.65	54.5	72.5	25.86	68.5	77.4
75.15	50.5	71.3	23.22	70.0	77.3
72.20	51.0	-	21.94	70.4	77.4
70.00	49.8	-	18.35	73.0	77.0
67.60	49.6	-	12.10	75.3	77.0
65.26	49.4	-	9.92	76.5	77.0
63.31	49.8	-	8.42	75.3	77.0
61.15	50.5	-	6.56	75.0	77.3
60.96	51.2	-	0.00	-72.3	-
56.15	-51.7	-75.5			
			(1+1)		

Locket, 1932

mol%	d	η
	25°	
100	0.8611	651.8
86.3	.8841	638.1
77.7	.9026	606.2
74.5	.8122	592.6

Sulfur dioxide (SO_2) + Cymene ($C_{10}H_{14}$)

De Carli, 1926

%	f.t.	E	%	f.t.	E
70.50	-93.2	-	47.80	-82.5	-84.0
69.00	90.0	-	47.10	82.2	84.0
67.26	89.0	-	44.73	81.3	84.0
64.20	89.8	-91.2	43.45	80.8	80.5
62.50	92.0	92.0	39.94	78.8	84.0
59.68	89.4	92.0	35.57	78.1	-
59.37	89.2	91.8	34.61	77.6	83.5
58.90	88.3	92.0	32.12	71.1	-83.2
58.14	88.0	92.0	29.27	76.9	-
55.10	86.0	-	26.23	76.0	-
54.35	85.5	-	23.73	75.5	-
51.07	83.2	-	20.00	74.8	-
50.60	81.1	-	16.95	74.3	-
49.72	-83.4	-	12.00	-74.0	-
		(1+1)	(2+1)		

Sulfur dioxide (SO_2) + Diisopropylbenzene ($C_{12}H_{18}$)

Francis, 1944

C.S.T. = below -7.8°

Sulfur dioxide (SO_2) + Diamylbenzene ($C_{16}H_{26}$)

Francis, 1944

C.S.T. = -8°

Sulfur dioxide (SO_2) + Diphenyl ($C_{12}H_{10}$)

Foote and Fleischer, 1934

t	p
sat. sol.	
-21.50	406
- 9.50	665
0.00	938

Sulfur dioxide (SO_2) + Triphenylmethane ($C_{19}H_{16}$)

Walden and Centnerszwer, 1902

M	D b.t.	M	D b.t.
0.064	+0.053	0.677	+0.635
.163	.151	.686	.612
.370	.371	.896	.846
.388	.383	.906	.862

Sulfur dioxide (SO_2) + Naphthalene ($C_{10}H_8$)

Foote and Fleischer, 1934

t	p
sat.sol.	
-18.70	473
-8.50	740
0.00	1034

Sulfur dioxide (SO_2) + Nonanaphthalene ($C_{19}H_{26}$)

Leslie, 1934

mol%	sat.t.	mol%	sat.t.
10	27	50	28
20	27	60	25
30	27	70	19
40	27.5	80	8

C.S.T. = 27°

Sulfur dioxide (SO_2) + Diisopropyl naphthalene ($C_{16}H_{20}$)

Francis, 1944

C.S.T. below : 78°

Sulfur dioxide (SO_2) + Methyl chloride (CH_3Cl)

Caubet, 1902

tot.vol. *	vol.liq.	P	tot. vol.	vol.liq.	P
		70.078%			
123°			136.8°		
18.311	-	27.2	14.080	-	34.6
16.901	-	29.0	12.669	-	37.5
15.490	-	30.9	11.259	-	40.4
14.080	-	32.9	9.848	-	44.1
12.669	-	35.5	8.438	-	48.3
11.259	-	38.0	7.028	-	52.5
9.848	-	40.9	5.617	-	57.1
8.438	-	44.7	5.476	dew point	57.8
7.874	dew point	46.3	4.912	0.215	58.0
7.028	0.180	46.6	4.206	0.603	58.3
5.617	0.532	46.8	3.231	0.991	58.3
4.206	0.920	47.0	2.796	1.308	58.5
2.796	1.308	47.7			
1.762	1.762	48.1			
		137.3°			
16.901	-	30.6	7.028	-	53.1
15.490	-	32.5	5.617	-	58.0
12.669	-	37.6	5.264	dew point	58.3
11.259	-	40.5	4.206	0.603	59.0
9.848	-	44.2	2.091	2.091	60.8
8.438	-	48.4			

* vol. are expressed in cc per 1 g. mixture

tot.vol.	vol.liq.	P	tot.vol.	vol.liq.	P
		43.85%			
95°			110°		
19.888	-	22.2	17.545	-	26.2
18.716	-	23.4	16.375	-	27.4
17.545	-	24.4	15.203	-	29.0
16.375	-	25.6	14.031	-	30.7
15.203	-	26.8	12.860	-	32.6
14.617	dew point	27.4	11.689	-	34.5
11.689	0.263	27.8	10.723	dew point	36.0
9.346	.468	28.4	9.346	0.175	36.4
7.003	.673	28.8	7.003	.497	36.6
4.661	.907	29.4	4.661	.849	37.2
2.318	1.083	30.8	2.318	1.142	38.0
1.381	1.381		1.468	1.468	39.4
123.6°			132°		
17.546	-	27.6	11.689	-	38.4
16.375	-	29.2	10.518	-	41.0
15.203	-	30.8	9.346	-	44.5
14.031	-	32.6	8.175	-	47.8
12.860	-	34.6	7.003	-	51.6
11.689	-	37.0	5.832	-	55.2
10.518	-	39.2	5.715	dew point	55.6
9.346	-	42.0	4.661	0.380	55.6
8.175	-	45.2	3.489	0.849	55.6
7.706	dew point	46.3	1.673	1.673	55.6
5.832	0.380	46.8			
4.661	0.673	47.0			
2.054	1.200	47.4			
1.556	1.556	48.5			

138.8°			144.4°		
11.689	-	39.2	11.689	-	39.7
10.518	-	42.0	10.518	-	43.0
9.346	-	45.4	9.346	-	46.4
8.175	-	49.1	8.175	-	50.2
7.003	-	53.3	7.003	-	54.4
5.832	-	57.6	5.832	-	59.0
5.246	dew point	59.6	4.661	dew point	64.0
3.489	0.439	60.6	3.489	0.380	65.2
2.903	1.054	60.9	2.903	0.907	65.5
2.025	1.644	61.1	2.318	1.644	65.8
1.820	1.820	61.2	2.054	2.054	66.4
146°(critical)			147.8°(homogen.)		
11.689	-	41.0	11.689	-	41.2
10.518	-	43.2	10.518	-	43.4
9.346	-	46.8	9.346	-	47.0
8.175	-	50.8	8.175	-	51.0
5.832	-	59.6	7.003	-	55.0
4.661	-	64.4	5.832	-	60.0
4.192	dew point	64.6	4.661	-	65.0
3.196	0.614	66.0	2.054	-	72.4
2.903	0.849	66.6			
2.083	2.083	67.4			

dew point			bubble point		
t	vol.	P	t	vol.	P
		70.078%			
100	12.415	31.3	100	1.562	33.0
117	9.143	41.2	119	.738	44.7
127	7.168	49.0	127	.808	51.6
129	7.028	50.4	129	.844	51.8
141.5	4.206	61.4	141.5	2.232	64.5
144.5	3.854	64.5	144.5	2.442	66.2
		56.57%			
123	8.286	45.2	123	1.682	49.0
135	5.866	54.8	135	.760	58.0
140	5.116	60.8	140	.903	63.4
145.5	2.260	67.0	145.5	2.260	67.0
		43.85%			
141	4.953	60.9	141	1.995	62.8
		31.90%			
115.5	9.001	38.2	115.5	1.381	40.6
128.0	6.929	47.4	128.0	.481	48.5
137.5	5.659	54.8	137.5	.615	56.2
145.0	4.522	62.2	145	.782	63.4
150.0	3.520	68.0	150	.982	69.4
		20.73%			
109	10.772	35.2	109	1.277	38.5
122	7.727	44.5	122	.332	45.4
137	5.651	55.0	137	.471	55.8
143	4.516	61.3	143	.582	61.3
146.5	3.713	65.0	146.5	.692	66.2
151	3.436	69.0	151	.969	70.6
152	3.409	70.2	152	2.025	71.4
153	retrograde	71.4			
		10.067%			
112.4	9.140	36.5	112.4	1.296	40.3
132	6.128	50.6	132	.390	54.0
144.5	4.622	61.4	144.5	.547	64.7
148	4.079	65.8	148	.610	67.2
155.5	2.488	74.2	155.5	2.488	74.2
		4.390%			
123	7.600	44.8	123	1.274	47.8
136	5.568	55.5	136	.375	58.0
149	3.941	68.2	149	.579	69.5
152	3.281	70.8	152	.680	71.8
			155.8	2.163	78.4

Sulfur dioxide (SO_2) + Carbon tetrachloride (CCl_4)

Bond and Beach, 1926

%	f.t.	sat.t.	%	f.t.	sat.t.
98.79	-26.78	-	59.19	-	-29.27
97.81	30.58	-	49.93	-	29.68
97.44	34.90	-	42.66	-	-
95.43	-44.63	-	31.66	-	35.20
88.44	-	-39.80	28.36	-	-37.20
82.56	-	34.90	16.44	-47.2	-
80.83	-	33.57	15.31	47.5	-
70.89	-	-	13.33	50.9	-
66.26	-	29.80	8.42	57.9	-
58.98	-	-29.37	5.24	-66.1	-

Lewis, 1925

%	d	%	d
	25°		
100.00	1.5830	64.46	1.4720
97.53	.5743	51.85	.4491
92.11	.5532	48.60	.4435
91.28	.5490	35.79	.4183
87.48	.5367	27.76	.4055
85.01	.5276	26.42	.4035
73.28	.4931	0.00	.3667
68.93	.4819		

mol%	η	mol%	η
	25°		
100	887.6	48.60	327.8
92.11	669.5	35.79	298.7
85.01	558.7	26.42	283.7
73.28	448.4	0.00	255.9
68.93	416.8		

Sulfur dioxide (SO_2) + Propyl bromide (C_3H_7Br)

Cupp and Rogers, 1939

%	d	%	d
	25°		
100.00	1.3430	37.17	1.3470
81.50	.3430	22.73	.3513
64.39	.3436	6.49	.3587
52.10	.3436	0.00	.3680

%	η	%	η
	25°		
100.00	479.7	26.03	267.9
90.54	431.1	14.25	256.9
72.00	352.7	0.00	247.2
52.87	307.6		

Sulfur dioxide (SO_2) + Isopropyl bromide (C_3H_7Br)

Cupp and Rogers, 1939

%	d	%	d
	25°		
100.00	1.3060	36.71	1.3338
88.29	.3083	16.84	.3491
80.54	.3107	8.25	.3599
66.67	.3163	0.00	.3680
46.23	.3266		

%	η	%	η
	25°		
100.00	443.8	49.72	287.0
86.21	378.9	34.76	266.4
78.28	349.9	17.32	255.5
63.87	313.3	0.00	247.2

Sulfur dioxide (SO_2) + Butyl bromide (C_4H_9Br)

Cupp and Rogers, 1939

%	d	%	d
	25°		
100.00	1.2689	47.13	1.3076
86.02	.2780	39.56	.3155
76.63	.2843	23.27	.3342
66.99	.2906	13.62	.3483
57.00	.2986	0.00	.3680

%	η	%	η
	25°		
100.00	591.4	23.94	278.6
87.56	494.2	10.17	259.2
67.76	387.7	0.00	247.2
46.86	323.7		

Sulfur dioxide (SO_2) + Methyl ether (C_2H_6O)

Baume, 1914

mol%	f.t.	mol%	f.t.	
0	-72.3	45.1	-96.4	
5.9	74.8	46.5	92.7	
7.7	74.8	49.4	91.3	
10.8	77.7	49.7	93.6	
14.35	88.7	53.2	94.5	
15.4	79.5	57.8	96.5	(1+1)
21.2	93.3	66.4	106.6	
23.1	93.3	68.4	110.8	
26.3	102.0	74.7	116.9	
27.8	107.2	75.8	117.5	
29.4	102.6	76.7	121.3	
32.7	106.6	80.6	123.4	
32.8	110.3	80.6	124.2	
35.1	105.9	83.0	126.9	
35.7	106.4	85.2	132.6	
37.1	103.4	87.5	135.6	
37.9	101.5	88.2	142.3	
40.0	101.2	90.3	145.0	
41.1	97.4	93.3	141.2	
43.7	93.9	96.6	139.7	
45.0	-93.4	100.0	-138.5	

Sulfur dioxide (SO_2) + Ether ($C_4H_{10}O$)

Lewis, 1925

%	d	%	d
		25°	
100	0.7084	38.83	1.0308
75.06	.8249	30.46	.0950
66.47	.8645	25.59	.1340
63.71	.8796	9.83	.2661
57.00	.9167	0	.3667
50.56	.9590		

%	η	%	η
	25°		
100	223.1	50.56	288.0
66.47	275.3	30.46	287.6
63.71	275.9	0.00	255.9
57.00	280.4		

Sulfur dioxide (SO_2) + Butyl ether ($C_8H_{18}O$)

Hill and Fitzgerald, 1935

c*	p	c	p
	20°		
0	11.0	6.256	332.4
1.528	87.5	7.920	413.5
3.082	170.5	9.524	483.5
4.582	250.1		

* g SO_2 absorbed in 100 cc

Sulfur dioxide (SO_2) + Anisole (C_7H_8O)

Albertson and Fernelius, 1943 (fig.)

mol%	f.t.	mol%	f.t.
0.0	-75	55	-71
10	-80	60	-67
20	-87	65	-62
40	-82.5	74	-56
45	-75	76	-54
47	-72.5	83	-48
50	-70 (1+1)	100	-38

Sulfur dioxide (SO_2) + Ethylene oxide(C_2H_4O)

Albertson and Fernelius, 1943 (fig.)

mol%	f.t.	mol%	f.t.	
0	-75	44	-97.5	
20	80	53	95	(1+1)
24	87.5	60	96.5	
26	93	66	98.5	
31	98	70	102	
32	107	78	105.5	
33	101.5	83	110	
37	115.5	86	112	
40	108	91	114.2	
	-102.5	100	-110.5	

Sulfur dioxide (SO_2) + Dioxane ($C_4H_8O_2$)

Albertson and Fernelius, 1943 (fig.)

mol%	f.t.	mol%	f.t.
0	-75	40	0
3	44	50	+2.5 (1+1)
5	35	60	-0.1
6	30	70	-5
11	18	72	-9 E
16	13	80	0
20	-5	90	+5
30	0 (2+1)	100	12

Sulfur dioxide (SO_2) + Carbon dioxide (CO_2)

Blümcke, 1888 and 1889

%	P			
	-17°	-15°	-10°	0°
0	-	0.80	1.00	1.53
0.6	-	-	-	1.83
1.0	1.02	-	1.39	2.02
1.7	1.33	-	1.68	2.32
2.6	-	1.80	2.09	2.80
3.5	-	-	-	3.20
4.8	-	-	-	3.82
5.0	-	2.51	3.01	3.93
10.4	4.33	-	5.02	6.42
16.5	5.80	-	7.11	9.09
23.4	7.72	-	9.30	11.79
29.6	-	-	11.60	14.38
	+10°	+20°	+30°	+35°
0	2.26	3.24	4.52	5.28
0.6	2.66	3.69	5.00	5.78
1.0	-	-	-	-
1.7	3.15	4.20	5.63	6.44
2.6	3.68	4.91	6.49	7.35
3.5	3.90	5.11	6.72	7.53
4.8	4.86	6.36	7.24	9.25
5.0	4.94	-	-	-
10.4	8.61	11.08	13.77	15.46
16.5	11.48	14.21	17.73	19.61
23.4	14.75	18.40	22.74	25.06
29.6	18.35	22.96	28.93	30.71

v*	P			
	47 vol%	49 vol%	69 vol%	71 vol%
	13°			
19	47.5	-	-	-
20	45.0	-	-	-
21	40.0	-	-	-
22	39.0	-	-	-
25	37.0	-	-	-
30	34.2	-	45.0	-
35	32.0	-	42.3	-
40	29.8	-	40.5	-
45	28.3	-	39.5	-
50	27.1	-	38.5	-
60	25.0	-	36.9	-
70	24.2	-	35.6	-
80	23.1	-	34.4	-
90	22.2	-	33.4	-
100	21.4	-	32.5	-
120	-	22.3	-	32.7
150	18.6	20.6	28.5	30.3
200	16.7	18.5	25.2	27.0
250	15.0	16.9	22.5	24.2
300	13.9	15.4	20.1	21.8
400	-	13.2	16.6	18.2
500	-	11.5	-	15.6
600	-	10.2	-	13.6
700	-	9.2	-	12.1
800	-	8.4	-	11.1
850	-	8.1	-	10.6

* v = fraction of normal volume . 10^4

		34°		
20	65.0	-	-	-
21	63.0	-	-	-
22	60.0	-	-	-
25	53.0	-	-	-
30	47.5	-	71.0	-
35	42.5	-	63.7	-
40	39.9	-	61.1	-
45	38.4	-	58.7	-
50	37.1	-	55.9	-
60	35.3	-	53.0	-
70	33.8	-	51.0	-
80	32.5	-	49.1	-
90	31.3	-	47.5	-
100	30.1	-	45.9	-
120	-	31.4	-	45.8
150	25.9	28.8	38.6	41.6
200	22.7	25.5	31.9	36.9
250	20.0	22.5	28.5	31.2
300	17.9	20.4	25.4	27.5
400	-	16.9	20.3	22.0
500	-	14.8	-	18.7
600	-	13.1	-	16.9
700	-	11.7	-	14.6
800	-	10.8	-	13.0
850	-	10.5	-	12.2
		76°		
50	77.0	-	-	-
60	66.0	-	-	-
70	60.5	-	-	-
80	56.7	-	-	-
90	53.0	-	-	-
100	50.4	-	-	75.0
150	42.4	-	-	58.2
170	-	-	46.0	-
200	38.0	-	42.1	48.5
250	32.4	-	37.2	40.9
300	28.5	-	33.1	35.4
400	-	-	27,4	27.9
500	-	-	23.3	-
600	-	-	20.1	-
700	-	-	17.7	-
800	-	-	15.7	-

Caubet, 1902

tot.vol.*	vol.liq.	P	tot.vol*	vol.liq.	P
		89.65 %			
		26°			
17.346	-	27.0	8.658	dew point	45.2
15.609	-	29.5	6.921	0.187	50.6
13.871	-	32.2	5.183	0.395	55.2
12.134	-	35.5	3.445	0.743	58.6
10.396	-	39.6	1.621	1.621	61.4
		32°			
17.346	-	27.9	7.094	dew point	54.2
15.609	-	30.4	5.183	0.204	61.6
13.871	-	33.4	4.314	0.309	64.6
12.134	-	37.0	3.445	0.569	67.1
10.396	-	41.2	1.881	1.881	69.4
8.658	-	46.9			
		37°			
17.346	-	28.4	6.921	-	56.2
15.609	-	31.2	5.357	dew point	63.5
13.871	-	34.0	4.314	0.187	68.4
12.134	-	37.8	3.445	0.395	71.0
10.396	-	42.4	2.576	0.960	74.2
8.658	-	48.2	2.055	2.055	74.6
		39° (critical)			
10.396	-	42.6	3.880	0.134	73.4
8.658	-	49.0	2.224	2.224	75.8
6.921	-	56.6	2.055	2.055	79.0
4.748	dew point	69.4	1.881	1.881	82.6
		84.32 %			
		27°			
23.209	-	20.9	11.591	0.129	35.2
21.549	-	22.2	9.930	0.170	38.4
19.890	-	23.8	8.270	0.212	42.3
18.240	-	25.4	6.610	0.319	47.6
16.570	-	27.4	4.951	0.477	50.6
14.910	-	29.6	3.291	0.782	54.0
13.267	-	32.4	1.506	1.506	56.3
12.530	dew point	33.6			
		36.4°			
23.209	-	21.6	8.768	dew point	45.7
21.549	-	23.1	6.610	0.212	51.9
19.890	-	24.6	4.951	0.378	58.0
19.240	-	26.6	3.291	0.710	64.4
16.570	-	28.6	1.714	1.714	67.0
14.910	-	31.2	1.631	1:631	73.2
13.267	-	34.0	1.548	1.548	85.4
11.591	-	37.7	1.465	1.465	105.0
9.930	-	41.8			
		46°			
19.890	-	25.6	5.988	dew point	60.4
18.240	-	27.6	4.951	0.178	65.3
16.570	-	29.7	4.121	0.319	69.4
14.910	-	32.4	3.291	0.477	72.8
13.267	-	35.7	2.461	1.042	75.0
11.591	-	39.4	1.963	1.963	76.5
9.930	-	44.0	1.797	1.797	84.0
8.270	-	50.0	1.631	1.631	97.4
6.610	-	57.6	1.606	1.606	105.0
		48.3° (critical)			
16.570	-	30.2	4.537	0.178	70.0
14.910	-	32.8	3.706	0.278	73.3
13.267	-	36.0	3.291	0.378	75.8
11.591	-	39.6	2.461	0.959	79.0
9.930	-	44.7	2.212	2.212	79.6
8.270	-	50.8	1.963	1.963	84.0
6.610	-	58.5	1.797	1.797	92.0
5.283	dew point	65.6	1.631	1.631	105.0
		49.8°			
14.910	-	33.0	3.706	0.207	74.4
13.267	-	36.2	3.291	0.332	76.5
11.591	-	39.8	2.876	0.456	79.0
9.930	-	45.0	2.668	0.581	79.4
8.270	-	50.8	2.544	0.498	80.6
6.610	-	58.8	2.466	dew point	80.7
5.034	dew point	67.4	2.129	-	84.0
4.537	0.132	70.2	1.880	-	90.0
4.121	0.166	72.4	1.714	-	102.4
		66.762 %			
		33.2°			
22.764	-	20.6	11.834	0.184	31.0
22.378	dew point	20.9	10.516	0.204	33.2
21.060	0.059	21.8	9.198	0.296	35.6
19.742	0.066	22.7	7.880	0.329	38.2
18.424	0.086	23.7	6.562	0.395	41.4
17.106	0.099	24.8	5.244	0.494	45.0
15.788	0.112	26.2	3.926	0.659	48.8
14.470	0.132	27.4	2.608	0.856	53.3
13.152	0.165	29.2	1.356	1.356	56.6
		44.5°			
23.696	-	20.9	10.516	0.152	37.2
22.378	-	21.0	9.198	0.184	39.8
21.060	-	23.2	7.880	0.217	43.3
19.742	-	24.3	6.562	0.296	47.3
18.424	-	25.8	5.244	0.395	52.0
17.106	-	27.4	3.926	0.626	57.3
15.788	-	29.0	2.608	0.824	64.0
14.470	-	30.8	1.455	1.455	69.5
14.207	dew point	31.2	1.402	1.402	79.0
13.152	0.099	32.6	1.382	1.382	93.0
11.834	0.125	34.6	1.356	1.356	101.4

		54.4°			
19.742	-	25.3	7.880	0.165	47.9
18.424	-	26.8	6.562	0.217	52.3
17.106	-	28.4	5.244	0.296	57.6
15.788	-	30.4	3.926	0.461	64.5
14.470	-	32.6	2.608	0.843	72.4
13.152	-	35.0	1.613	1.613	77.8
11.834	-	37.8	1.579	1.579	87.8
10.516	-	40.8	1.487	1.487	98.8
10.187	dew point	41.6	1.455	1.455	105.0
7.198	0.086	44.2			
		65.3°			
19.742	-	26.5	7.880	-	52.7
18.424	-	27.9	7.023	dew point	56.4
17.106	-	29.7	5.244	0.165	65.0
15.788	-	31.7	3.926	0.329	72.8
14.470	-	34.1	2.608	0.692	82.2
13.152	-	36.6	1.982	1.982	87.8
11.834	-	39.6	1.883	1.883	90.0
10.516	-	43.4	1.842	1.842	95.6
9.198	-	47.5	1.718	1.718	101.4
		68° (critical)			
13.152	-	37	5.244	0.131	67.1
11.834	-	40	3.926	0.276	75.0
10.516	-	43.9	2.608	0.560	84.9
9.198	-	48.2	2.147	2.147	88.6
7.880	-	53.3	1.949	1.949	92.0
6.562	-	59.5	1.784	1.784	98.8
6.167	dew point	61.8	1.685	1.685	105.0
		70° (retrograde)			
13.152	-	37.5	3.926	0.164	77.0
11.834	-	40.4	3.267	0.250	83.4
10.516	-	44.4	2.608	0.428	87.8
9.198	-	49.0	2.410	0.263	89.6
7.880	-	54.2	2.377	dew point	90.0
6.562	-	61.0	2.278	-	90.8
5.738	dew point	66.2	2.081	-	93.4
5.244	0.066	69.4	1.949	-	96.4
4.585	0.105	73.2	1.784	-	105.0
		72° (retrograde)			
13.152	-	38	3.926	0.099	79.3
11.834	-	40.8	3.267	0.164	84.8
10.516	-	44.9	2.793	0.184	87.8
9.198	-	49.4	2.608	0.199	89.6
7.880	-	55.0	2.509	dew point	89.8
6.562	-	61.8	2.114	-	95.6
5.244	dew point	70.0	1.949	-	99.3
4.585	0.066	74.5	1.842	-	105.0
		74.2° (retrograde)			
9.198	-	49.8	3.563	0.099	83.4
7.880	-	55.6	3.267	0.006	86.2
6.562	-	62.3	3.003	dew point	88.0
4.585	-	75.0	2.608	-	93.0
4.420	dew point	78.2	2.278	-	98.8
3.926	0.066	80.6	2.015	-	105.0
		52.897 %			
		46.2°			
21.690	-	20.8	11.557	0.257	29.6
20.967	-	21.4	10.109	0.300	31.8
20.315	dew point	21.8	8.661	0.351	34.6
18.795	0:076	22.8	7.213	0.401	38.0
17.347	0.090	23.8	5.766	0.459	41.5
15.900	0.112	24.9	4.318	0.619	46.5
14.452	0.155	26.2	2.870	0.800	52.7
13.004	0.199	27.8	1.314	1.314	59.6
		56.8°			
21.690	-	21.5	11.557	0.112	33.4
20.243	-	22.9	10.109	0.184	36.0
18.795	-	24.3	8.661	0.221	38.9
17:347	-	25.9	7:213	0.329	42.6
15.900	-	27.7	5.766	0.401	45.3
14.452	-	29.7	4.318	0.510	53.3
14.090	dew point	30.2	2.870	0.763	61.0
13.004	0.076	31.4	1.495	1.495	68.9
		70.4°			
21.620	-	22.8	9.964	dew point	41.6
20.243	-	24.2	8.661	0.112	44.8
18.795	-	25.7	7.213	0.184	49.4
17.347	-	27.6	5.766	0.307	54.6
15.900	-	29.5	4.318	0.474	62.4
14.452	-	32.0	2.870	0.727	71.8
13.004	-	34.6	1.604	1.604	82.2
11.557	-	37.8	1.531	1.531	87.8
10.109	-	41.1	1.459	1.459	105.0
		78.4°			
18.795	-	26.6	7.720	dew point	49.6
17.347	-	28.4	5.766	0.184	60.0
15.900	-	30.6	4.318	0.300	68.4
14.452	-	33.0	2.870	0.590	79.0
13.004	-	36.0	1.774	1.774	89.5
11.557	-	39.2	1.691	1.691	95.6
10.109	-	43.1	1.467	1.467	105.0
8.661	-	48.5			
		83°			
18.795	-	27.1	5.766	0.090	62.9
17.347	-	29.0	5.042	0.184	67.0
15.900	-	31.1	4.318	0.271	71.8
14.452	-	33.5	3.594	0.380	76.5
13.004	-	36.6	2.870	0.546	83.4
11.557	-	39.8	2.146	1.100	90.0
10.109	-	42.8	2.002	2.002	92.0
8.661	-	49.3	1.774	1.774	97.4
7.213	-	55.4	1.712	1.712	105.0
6.851	dew point	57.2			
		86.0° (critical)			
15.900	-	31.2	5.042	0.112	67.6
14.452	-	33.8	4.318	0.221	72.8
13.004	-	36.8	3.594	0.329	78.0
11.557	-	40.0	2.870	0.510	84.8
10.109	-	44.3	2.219	2.219	93.0
8.661	-	49.6	2.074	2.074	93.4
7.213	-	56.4	1.878	1.878	98.8
5.910	dew point	63.5	1.777	1.777	105.0
		88.0° (retrograde)			
15.900	-	31.6	3.956	0.180	78.0
14.452	-	34.3	3.594	0.217	80.6
13.004	-	37.3	3.232	0.340	84.0
11.557	-	40.5	2.870	0.434	86.6
10.109	-	45.2	2.508	0.506	90.0
8.661	-	50.5	2.291	-	93.4
7.213	-	57.0	2.074	-	95.6
5.530	dew point	68.4	1.929	-	100.8
4.680	0.072	72.4	1.821	-	105.0
4.318	0.115	75.3			
		89.6°			
14.452	-	34.4	4.318	0.108	76.0
13.004	-	37.4	3.956	0.144	79.0
11.557	-	40.7	3.594	0.202	82.2
10.109	-	45.4	3.232	0.289	85.4
8.661	-	50.8	2.870	0.340	88.6
7.213	-	57.6	2.508	0.289	91.6
5.766	-	66.66	2.400	-	93.2
4.897	dew point	71.8	2.146	-	98.7
4.680	0.072	73.2	1.929	-	105.0
		91.4°			
11.557	-	41.0	3.051	0.180	86.0
10.109	-	45.7	2.870	0.217	88.4
8.661	-	51,2	2.635	0.144	91.0
7.213	-	58.2	2.581	-	92.1
5.766	-	67.1	2.508	-	94.0
4.499	dew point	75.1	2.327	-	96.5
3.956	0.130	79.8	2.146	-	101.0
3.594	0.144				

40.03 %

66.4°

19.965	-	22.8	8.542	0.310	37.0
18.537	-	24.2	7.114	0.396	40.0
17.109	-	25.8	5.686	0.503	44.5
15.253	dew point	28.4	4.258	0.610	50.0
14.253	0.082	28.8	2.830	0.860	57.4
12.825	0.146	30.4	1.367	1.367	68.1
11.398	0.181	32.2	1.296	1.296	79.6
9.970	0.224	34.3	1.260	1.260	98.8

70.8°

18.537	-	24.5	9.970	0.181	35.0
17.109	-	26.3	8.542	0.253	38.0
15.681	-	28.0	7.114	0.360	41.3
14.253	-	29.6	5.686	0.467	45.8
13.682	dew point	30.8	4.258	0.574	51.6
12.825	0.110	32.0	2.830	0.752	59.0
11.398	0.146	33.4	1.402	1.402	70.0

76°

18.537	-	25.3	8.542	0.196	40.4
17.109	-	27.0	7.114	0.289	45.0
15.681	-	28.8	5.686	0.403	49.8
14.253	-	31.2	4.258	0.567	55.5
12.825	-	33.5	2.830	0.824	63.4
11.526	dew point	35.8	1.453	1.453	76.0
9.970	0.146	38.0			

81°

18.537	-	25.7	7.114	0.231	47.0
17.109	-	27.4	5.686	0.338	51.8
15.681	-	29.6	4.258	0.538	58.8
14.253	-	31.8	2.830	0.752	69.0
12.825	-	34.5	1.510	1.510	81.4
11.398	-	37.5	1.424	1.424	95.6
10.113	dew point	40.5	1.402	1.402	105.0
8.542	0.181	43.5			

92°

18.537	-	26.8	7.400	dew point	53.3
17.109	-	28.5	5.686	0.196	60.0
15.681	-	30.7	4.258	0.396	67.4
14.253	-	33.2	2.830	0.681	77.0
12.825	-	36.0	1.653	1.653	88.6
11.398	-	39.2	1.581	1.581	95.6
9.970	-	43.3	1.474	1.474	105.0
8.542	-	48.5			

98°

17.109	-	29.2	5.686	0.110	63.4
15.681	-	31.3	4.972	0.181	67.0
14.253	-	33.9	4.258	0.324	70.4
12.825	-	36.8	3.545	0.467	75.8
11.398	-	40.0	2.830	0.646	81.8
9.970	-	44.5	2.117	1.030	88.4
8.542	-	49.6	1.831	1.831	92.0
7.114	-	55.9	1.760	1.760	97.0
6.114	dew point	61.4	1.617	1.617	105.0

102.0°

17.109	-	29.4	4.258	0.203	73.0
15.681	-	31.7	3.545	0.324	79.4
14.253	-	34.2	2.830	0.538	86.0
12.825	-	37.2	2.464	0.717	89.6
11.423	-	40.2	2.295	0.753	91.0
9.970	-	45.0	2.188	2.188	93.4
8.542	-	50.2	2.117	2.117	93.8
7.114	-	56.6	1.964	1.964	96.4
5.686	-	65.0	1.903	1.903	98.8
5.436	dew point	66.6	1.760	1.760	105.0
4.972	0.110	69.4			

106.5° (critical)

17.109	-	30.2	4.894	dew point	73.6
15.681	-	32.4	4.258	0.153	76.6
14.253	-	35.0	3.902	0.181	80.6
12.825	-	38.0	3.545	0.203	83.4
11.398	-	41.7	2.830	0.324	91.0
9.970	-	46.3	2.509	2.509	94.2
8.542	-	51.6	2.245	2.245	98.8
7.114	-	58.6	1.903	1.903	105.0
5.686	-	66.4			

108.2° (retrograde)

14.253	-	35.2	4.115	dew point	79.5
12.825	-	38.4	3.545	0.114	84.8
11.398	-	42.0	3.188	0.157	87.8
9.970	-	46.8	2.830	0.071	92.0
8.542	-	52.1	2.688	-	93:1
7.114	-	59.6	2.464	-	96.6
5.686	-	68.4	2.117	-	102.4
4.258	-	78.4	2.009	-	105.0

110°

14.253	-	35.3	5.686	-	69.0
12.825	-	38.5	3.545	dew point	85.8
11.398	-	42.1	3.188	-	89.6
9.970	-	46.9	2.830	-	94.0
8.542	-	52.2	2.464	-	97.6
7.114	-	59.7	2.117	-	103.4

29.074 %

61.5°

21.586	dew point	20.4	7.793	0.446	31.7
20.078	0.084	21.2	5.560	0.530	36.4
16.728	0.139	23.0	3.326	0.698	43.8
14.494	0.167	24.3	2.210	0.865	49.4
12.260	0.279	26.2	1.232	1.232	55.6
10.027	0.363	28.4			

72.5°

17.835	-	24.6	10.027	0.279	31.6
16.728	-	25.8	7.793	0.418	34.6
16.208	dew point	26.4	5.560	0.530	39.4
14.494	0.106	27.6	3.326	0.726	48.2
12.260	0.167	29.4	1.287	1.287	61.8

81.4°

16.728	-	26.6	7.793	0.363	38.0
15.611	-	28.2	6.677	0.418	40.8
14.494	-	29.8	5.560	0.502	44.4
13.378	-	31.8	4.443	0.586	48.6
12.707	dew point	32.4	3.326	0.698	53.6
11.144	0.117	33.5	2.210	0.865	61.5
10.027	0.195	34.6	1.311	1.311	68.6
8.910	0.296	36.0			

92°

16.728	-	27.4	7.793	0.195	43.8
15.611	-	29.0	6.677	0.307	46.6
14.494	-	30.8	5.560	0.390	49.9
13.378	-	32.6	4.443	0.502	54.4
12.260	-	34.8	3.326	0.698	59.5
11.144	-	37.4	2.210	0.865	67.0
10.139	dew point	39.4	1.372	1.372	77.0
8.910	0.128	41.5			

102.8°

15.611	-	30.4	6.677	0.128	53.3
14.494	-	32.1	5.560	0.212	57.6
13.378	-	34.6	4.443	0.363	62.8
12.260	-	37.0	3.326	0.586	68.4
11.144	-	39.4	2.210	0.893	78.4
10.027	-	42.5	1.511	1.511	84.0
8.910	-	46.0	1.455	1.455	89.8
7.793	-	50.0	1.372	1.372	101.0
7.514	dew point	51.2	1.368	1.368	105.0

113°

14.494	-	33.4	5.726	dew point	62.8
13.378	-	35.6	4.443	0.195	69.5
12.260	-	38.0	3.326	0.430	76.5
11.144	-	40.7	2.210	0.921	86.6
10.027	-	44.2	1.762	1:762	89.8
8.910	-	47.8	1.650	1.650	96.4
7.793	-	52.2	1.567	1.567	101.0
6.677	-	57.3	1.539	1.539	105.0

119.5°(critical)

10.027	-	45.2	3.885	0.139	77.4
8.910	-	49.0	3.326	0.195	81.6
7.793	-	53.6	2.768	0.363	86.6
6.677	-	58.8	2.489	2.489	90.8
5.560	-	66.0	2.137	2.137	96.6
4.443	-	72.8	1.595	1.595	105.0
4.331	dew point	73.4			

120.6°(retrograde)

14.494	-	34.0	4.443	-	75.0
13.378	-	36.4	3.885	dew point	79.2
12.260	-	38.8	3.326	0.139	83.4
11.144	-	41.8	2.768	0.307	86.2
10.027	-	45.4	2.153	-	91.4
8.910	-	49.4	1.930	-	95.0
7.793	-	54.0	1.650	-	102.4
6.677	-	59.6	1.595	-	105.1
5.560	-	66.2			

18.619 %

71°

19.627	-	21.0	9.147	0.376	26.4
19.102	dew point	21.4	6.627	0.540	29.6
17.007	0.102	21.9	3.907	0.701	35.5
14.387	0.173	23.0	2.597	0.822	39.6
11.767	0.298	24.2	1.123	1.123	48.8

80°

19.627	-	21.7	10.457	0.271	29.2
18.317	-	22.8	7.837	0.396	32.0
17.007	-	24.1	5.217	0.560	36.6
15.303	dew point	25.5	3.907	0.701	40.4
14.387	0.102	26.2	2.597	0.822	45.7
13.077	0.154	27.0	1.221	1.221	54.5

94°

19.627	-	22.8	6.627	0.370	39.7
18.317	-	23.8	5.217	0.560	41.8
17.007	-	25.2	3.907	0.658	45.8
15.697	-	27.0	2.597	0.822	52.5
13.077	-	30.8	1.319	1.319	63.2
11.767	-	33.9	1.287	1.287	71.8
10.850	dew point	34.6	1.241	1.241	87.8
9.147	0.167	36.4	1.221	1.221	105.0
7.837	0.271	37.8			

104°

19.627	-	23.7	8.884	dew point	42.0
18.317	-	25.0	7.837	0.140	43.7
17.007	-	26.6	6.627	0.271	46.0
15.697	-	28.4	5.217	0.429	49.4
14.387	-	30.4	3.907	0.592	53.3
13.077	-	32.6	2.597	0.854	59.6
11.767	-	35.0	1.385	1.385	70.2
10.457	-	38.2	1.333	1.333	86.0
9.147	-	41.4	1.287	1.287	100.0

114°

19.627	-	24.3	7.837	-	47.7
18.317	-	25.8	7.050	dew point	51.2
17.007	-	27.8	5.217	0.298	55.5
15.697	-	29.3	3.907	0.527	60.6
14.387	-	31.4	2.597	0.822	68.4
13.077	-	33.6	1.418	1.418	77.4
11.767	-	36.4	1.391	1.391	87.8
10.457	-	39.4	1.365	1.365	105.0
9.147	-	43.2			

124°

18.317	-	26.6	5.348	dew point	62.8
17.007	-	28.3	3.907	0.330	69.0
15.697	-	30.3	3.252	0.494	72.2
14.387	-	32.6	2.597	0.756	77.0
13.077	-	34.9	1.942	1.280	82.2
11.767	-	37.9	1.680	1.680	84.8
10.457	-	41.2	1.614	1.614	88.0
9.147	-	45.4	1.549	1.549	91.0
7.837	-	50.2	1.447	1.447	105.0
6.627	-	55.8			

132°(critical)

18.317	-	27.2	6,627	-	58.6
17.007	-	29.0	5.217	-	66.6
15.697	-	30.9	3.907	dew point	75.8
14.387	-	33.3	3.252	0.180	79.4
13.077	-	35.8	2.597	0.494	84.0
11.767	-	38.8	2.204	2.204	86.6
10.457	-	42.4	1.942	1.942	89.8
9.147	-	46.8	1.680	1.680	98.8
7.837	-	52.2	1.614	1.614	105.0

133.6°(retrograde)

13.077	-	36.0	3.252	0.066	80.0
11.767	-	39.0	2.597	0.262	84.0
10.457	-	42.6	2.531	0.131	84.8
9.147	-	47.0	2.466	-	86.0
7.837	-	52.4	2.269	-	88.6
6.627	-	59.2	1.942	-	93.0
5.217	-	67.4	1.778	-	98.8
3.907	-	76.4	1.647	-	105.0
3.579	-	79.4			

8.905 %

81°

18.401	dew point	21.4	5.317	0.640	28.3
15.997	0.079	22.1	4.249	0.693	29.8
13.861	0.164	22.6	3.181	0.773	32.0
11.727	0.293	23.4	2.113	0.853	34.6
9.589	0.431	24.6	1.125	1.125	40.4
7.453	0.506	25.8			

92°

19.202	-	22.0	10.657	0.223	28.7
18.134	-	22.9	8.521	0.346	30.0
17.066	-	24.0	6.385	0.506	31.8
15.997	-	25.3	4.249	0.656	34.7
14.930	-	26.4	3.181	0.800	37.2
13.728	dew point	27.7	2.113	0.853	40.4
12.793	0.079	28.0	1.178	1.178	46.5

102°

17.066	-	24.8	7.453	0.319	35.4
15.997	-	26.3	5.317	0.560	37.5
14.930	-	27.7	4.249	0.656	39.4
13.861	-	29.0	3.181	0.773	41.4
12.793	-	30.6	2.113	0.880	45.4
11.727	-	32.7	1.216	1.216	52.2
10.978	dew point	33.8	1.152	1.152	70.0
9.589	0.132	34.4	1.141	1.141	87.8
8.521	0.239	34.8			

123.5°

15.997	-	28.4	6.812	dew point	50.8
14.930	-	30.2	5.317	0.266	53.2
13.861	-	31.8	4.249	0.453	57.8
12.793	-	33.8	3.181	0.693	59.0
11.727	-	36.1	2.113	0.933	63.4
10.657	-	38.6	1.365	1.365	69.0
9.589	-	41.8	1.339	1.339	79.0
8.521	-	44.8	1.312	1.312	85.0
7.453	-	48.5			

		133°			
15.997	-	29.4	5.317	-	60.6
14.930	-	31.1	4.943	dew point	62.3
13.861	-	32.9	4.249	0.212	64.6
12.793	-	35.0	3.181	0.560	67.4
11.727	-	37.4	2.647	0.720	69.5
10.657	-	39.8	2.113	0.960	71.4
9.589	-	43.0	1.483	1.483	75.2
8.521	-	46.6	1.365	1.365	89.8
7.453	-	50.7	1.328	1.328	105.0
6.385	-	55.2			
		143°			
13.861	-	34.0	4.249	-	71.4
12.793	-	36.3	3.715	dew point	74.5
11.727	-	38.8	3.181	0.159	75.8
10.657	-	41.8	2.647	0.399	79.0
9.589	-	45.4	2.166	2.166	80.6
8.524	-	49.0	1.846	1.846	84.8
7.453	-	53.2	1.579	1.579	93.0
6.385	-	58.0	1.526	1.526	98.8
		145.4°(critical)			
3.200	dew point	78	2.162	2.162	81.4

● Volumes are in cc for 1 g. mixture .

dew point t	vol.	P	bubble point t	vol.	P
		84.32%			
22	14.910	28.7	22	1.491	50.9
33	10.428	40.4	32.4	.660	61.8
41.2	7.606	51.2	40.8	.764	71.9
		66.762%			
38.2	18.556	25.2	38.4	1.422	59.5
50	11.834	37.7	50.4	.579	73.3
59	8.704	48.2	60	.751	84.0
		52.897%			
41	28.060	18.4	22.6	1.205	39.5
63.5	12.633	35.2	31.4	.220	47.0
			41.0	.321	54.6
			52.6	.386	65.0
			63.5	.495	75.0
		40.03%			
85	9.113	44.3	33.2	1.224	42.6
			45	.260	51.6
			60.6	.331	62.6
			85	.567	84.0
		29.074%			
			29.2	1.120	33.7
			38.0	.132	39.7
			50.6	.204	47.0
		18.619%			
			29	1.058	27.4
			41	.084	32.7
			49	.104	36.5
			60	.123	42.4
		8.905%			
113	8.361	42.0	47	1.045	26.7
			61	.072	31.8
			70.5	.098	35.5
			116	.275	62.8

Thiel and Schulte, 1920

mol% L	mol% V	p	t
33.6	99.72	750	-78.633

Blümcke, 1888 and 1889

%	d 0°	d 30°
0	1.439	1.360
10	1.404	1.324
20	1.363	1.281
30	1.314	1.232
40	1.262	-
50	1.212	-
100	0.927	0.543
100	0.919	0.556

Yung and Schmick, 1930

%	η	%	η
		15.8°	
100	14.77	40	13.63
90	14.64	30	13.38
80	14.47	20	13.16
70	14.29	10	12.88
60	14.07	0	12.60
50	13.84		

Sulfur dioxide (SO_2) + Acetone (C_3H_6O)

Albertson and Fernelius, 1943

mol%	f.t.	mol%	f.t.
0	-75	59	-96
15	85	62	101
18	87.5	70	115
25	97.5	71	117
28	102 E	73	119 E
30	99	76	114
32	95	80	110
35	92	82	105
39	89	90	100
42	85	94	97
50	82.1 (1+1)	100	-95
52	85		
56	-91		

Lewis, 1925

%	d	%	d
	25°		
100.00	0.7850	37.93	1.0886
75.26	.8885	21.05	.1994
69.40	.9129	20.80	.2052
47.83	1.0132	12.32	.2690
47.58	.0313	8.65	.2950
44.90	.0410	0.00	.3667

%	η	%	η
	25°		
100	304.0	21.05	301.6
75.26	343.0	8.65	284.0
47.58	341.0	0	255.9
37.93	340.4		

Sulfur dioxide (SO_2) + Camphor ($C_{10}H_{16}O$)

Bellucci and Grassi, 1913

%	f.t.	%	f.t.	
0	-76	55.17	-46	
3.34	77	55.56	45	
6.47	77.5	56.60	44	
9.40	78.5	58.14	41.5	
13.47	80	59.97	38.5	
17.41	81	61.47	36	
22.00	82	62.50	33.5	
23.52	80	66.53	28	
26.16	77	68.75	25	
28.39	75	70.05	24.5	
31.69	71	72.37	25.5	(1+1)
37.82	64	73.99	27	
42.05	59	76.75	25	
46.87	54	77.72	23	(1+2)
51.71	49	79.33	16	
53.57	46	80.48	-13	
54.40	-45.3	100.00	+178	

Ishikawa, Mitsui and Murooka, 1934 - 1935

cc SO_2 per 2 g camphor	p	cc SO_2 per 2 g camphor	p
		30°	
16.5	568.5	149.4	574.1
30.9	569.5	162.1	615.4
51.2	571.2	169.0	645.4
70.5	571.6	177.0	680.8
90.4	572.4	182.6	704.4
109.5	572.7	193.2	750.3
129.1	573.3	203.5	794.8
		20°	
14.9	408.3	192.9	508.8
34.0	408.6	202.4	538.8
53.0	409.9	213.3	572.6
76.4	410.5	223.2	603.4
97.9	411.0	231.0	627.1
132.6	411.8	237.8	648.2
145.2	412.4	265.1	728.8
162.9	416.8	273.8	754.8
179.2	467.0		
		10°	
7.1	281.2	269.1	498.5
40.4	282.6	282.9	527.3
60.0	282.2	300.1	561.4
81.7	283.4	317.9	596.3
100.1	283.2	331.6	622.7
121.9	283.4	345.5	648.8
145.4	284.1	357.3	669.2
168.8	287.2	365.1	683.9
193.8	340.2	371.4	695.5
211.6	377.2	378.8	709.1
222.0	399.2	390.7	729.1
235.9	428.9	399.9	745.0
252.4	463.7		
		0°	
7.3	183.9	237.3	273:4
20.8	184.7	255.6	294.3
46.3	185.1	269.5	311.0
66.9	185.8	286.0	333.8
87.7	186.2	302.8	353.6
111.9	185.9	314.1	369.3
133.0	186.5	329.6	390.2
155.1	187.1	345.5	410.2
179.2	192.7	362.6	432.0
192.9	209.3	393.4	469.9
216.2	242.1	418.7	499.3

cc SO_2 per 2 g camphor	p	cc SO_2 per 2 g camphor	p
	-16°		
4.3	83.9	229.0	117.7
22.9	84.0	241.7	127.6
34.2	84.3	260.2	140.6
56.3	84.3	278.3	152.8
80.8	84.3	297.2	165.9
103.8	84.6	313.0	176.0
127.9	84.6	333.6	190.7
148.9	84.5	356.0	204.6
177.3	84.7	378.1	220.5
203.8	100.9	414.0	244.2
	-31°		
16.4	28.9	256.2	52.6
26.4	29.1	262.1	52.6
37.4	28.9	268.5	56.6
59.1	28.9	278.0	83.8
68.8	29.3	289.7	94.5
83.0	29.0	301.2	98.4
107.2	29.3	312.7	99.3
111.4	28.9	324.3	99.7
116.3	29.1	335.9	99.9
121.2	52.9	347.6	100.0
130.1	52.8	359.3	100.6
143.0	53.3	370.9	100.8
158.5	53.1	382.4	100.8
171.3	53.3	405.0	107.7
184.3	53.3	419.1	112.1
197.2	53.4	431.7	115.2
203.7	53.8	437.8	117.7
213.4	53.6	478.3	130.3
224.8	53.5	504.6	138.1
243.2	53.6		
	- 38°		
30.9	27.6	343.5	83.3
67.6	27.1	376.3	83.7
103.3	27.3	407.5	83.5
136.8	27.1	427.9	83.8
171.8	27.3	444.9	83.5
200.3	27.9	464.5	83.9
238.5	27.5	492.1	87.8
262.0	27.6	502.4	89.0
282.0	39.0	521.4	92.4
286.4	82.8	540.5	95.6
312.5	83.3	556.8	98.8

t	cc SO_2 absorbed per 2g camphor	combined in 100g solution	free in100g solut.
30	152.5	38.5	18.2
20	161.2	35.6	19.1
10	168.0	33.4	19.7
0	173.6	31.3	20.3
-16	180.0	29.7	20.8

Schlundt, 1903

%	d	$(\alpha)_D$
	20°	
64.515	1.0924	+40.31
76.595	.0449	45.24
79.492	.0345	46.77
79.492	.0345	46.78

t	α
77%	
20	37.19
0	36.60
-12	36.14

Sulfur dioxide (SO_2) + Fenchone ($C_{10}H_{16}O$)

Pasteur, 1931 (fig.)

%	f.t.	%	f.t.
60	0	95.5	80
68.5	10	96.5	90
76	20	97	100
81.5	30	97.5	110
86	40	98.5	120
88.5	50	98.8	130
91.5	60	99.0	140
93.5	70		150

Sulfur dioxide (SO_2) + Acetic anhydride ($C_4H_6O_3$)

Lloyd, 1908

t	c*	t	c
	760 mm		
-5	19.6	+15	11.4
0	14.8	20	10.6
+5	13.6	25	9.1
10	12.2	30	9.0

* c = g SO_2 in 100 cc

Sulfur dioxide (SO_2) + Antraquinone ($C_{14}H_8O_2$)

Centnerszwer and Teletov, 1903

t	% L	% V
162	11.66	-
176	-	2.15
188	-	3.29

%	f.t.	%	f.t.
0.63	39.6	4.21	108.7
0.87	51.5	5.30	118.5
1.70	67.9	7.00	141.6
2.19	82.4	8.76	160.0
2.73	92.1	11.26	179.0
3.54	101.4	15.47	183.7
4.06	106.3	100.00	273

%	t_1	t_2	t_3	t_4
		0.35*		
3.29	-	-	95.1	187
4.00	-	-	100.9	192.9
5.34	-	-	141.0	211.0
7.40	177.5	168.9	191.1	239
8.31	177.0	188.0	191.7	244
8.81	178.0	186.0	196.2	250
9.99	176.0	188.5	195.0	265
11.11	177.0	188.0	198.9	276
12.43	177.2	187.1	197.0	292
18.70	178.1	186.3	200.3	378

%	t_3	t_4	%	t_3	t_4
	0.41			0.51	
3.82	97.3	168.1	3.19	94.2	165.2
4.06	106.3	176.3	3.19	94.9	165.8
4.20	109.7	180	3.60	98.4	166.5
5.30	120.0	198.2	5.98	140.2	172.3
6.84	151.4	195	7.49	158.0	179.9
8.36	159.2	208.5	8.16	160.1	178.8
8.89	173.2	213.3	15.46	181.3	215.2
14.96	189.5	249.1			
	0.61				
3.96	99.4	153.8			
7.14	137.1	159.0			
9.05	146.3	156.3			
14.60	156.0	172.5			
15.97	169.0	184.0			

t_1 = temperature when the liquid first disappears

t_2 = " - " " " reappears

t_3 = temperature when all solid is dissolved

t_4 = " when liquid again disappears

* = v/v_t = quotient of the total volume to the volume of the tube

Sulfur dioxide (SO_2) + Ethyl acetate ($C_4H_8O_2$)

Locket, 1932

mol%	d	η
	25°	
100	-	426.9
88.95	-	429.9
76.40	0.9814	428.9
65.00	-	423.9

Sulfur dioxide (SO_2) + Olive oil ($C_{57}H_{110}O_6$)

Bingham, 1907

C.S.T. = 28°

Sulfur dioxide (SO_2) + Diethyl sulfide ($C_4H_{10}S$)

Albertson and Fernelius, 1943

mol%	f.t.		mol%	f.t.
0	-75		78	-80
8	-77.5		79	-84
16	-84.1 E		80	-90
30	-67.5		82	-95
41	-54		82	-104.5
45	-49		83	-104.5 E
50	-48	(1+1)	85	-104.5
51	-50		92	-103.5
59	-56		100	-103.0

Sulfur dioxide (SO_2) + Trimethyliodide sulfonium (C_3H_9IS)

Walden, 1899

c	D b.t.(SO_2)
7.02	+0.325
15.70	0.840
27.35	1.955
38.72	3.575

Sulfur dioxide (SO_2) + Amylamine ($C_5H_{13}N$)

Hill and Fitzgerald, 1935

mol%	p	mol%	p
	20°		
100	21.5	60.61	14.3
90.25	78.5	56.53	23.1
81.04	158.0	53.08	73.1
73.57	177.0	49.95	212.0
67.43	173.5	49.90	509.5
64.06	8.5	(1+2)	(1+1)

Sulfur dioxide (SO_2) + Methylaniline (C_7H_9N)

Foote and Fleischer, 1934

t	p	t	p
	sat.sol.		
-19.80	410	28.00	830
-9.40	568	30.00	684
0.00	763	29.10	299
6.50	892	26.30	182
10.00	958	23.50	117
14.60	1024	19.65	67
18.15	1046	14.60	35
22.50	1023	0.00	6
25.15	975		

Hill and Fitzgerald, 1935

mol%	p	mol%	p
	25°		
100	2.0	60.55	166.1
88.89	19.5	56.43	237.0
79.50	42.0	52.75	329.0
71.22	72.5	49.75	436.0
65.57	114.4	42.55	552.5

Albertson and Fernelius, 1943 (fig.)

mol%	f.t.	mol%	f.t.	
30	24	50	30	(1+1)
35	30	52	27	
43	31	66	16	

Sulfur dioxide (SO_2) + Ethylaniline ($C_8H_{11}N$)

Foote and Fleischer, 1934

t	p	t	p
	sat.sol.		
-21.75	371	20.30	1040
-15.00	481	24.00	962
-7.35	622	25.00	218
0.00	785	12.60	43
+11.00	978	6.60	18

Hill and Fitzgerald, 1935

mol%	p	mol%	p
	25°		
100	1.5	59.83	264.5
84.74	46.5	53.43	378.0
73.27	105.0	49.33	510.0
65.15	172.5	45.72	655.0

Sulfur dioxide (SO_2) + Dimethylaniline ($C_8H_{11}N$)

Hill and Fitzgerald, 1935

mol%	p	mol%	p
	25°		
100	2.0	51.28	189.1
84.53	14.6	47.85	290.2
73.21	30.0	44.06	449.5
63.94	56.5	41.67	575.0
56.50	106.0		

Balej and Regner, 1956

mol%	p_1	mol%	p_1
15°		20°	
81.70	5.27	76.73	12.25
71.88	12.30	76.20	13.25
70.56	14.19	71.22	21.23
65.27	21.51	66.34	28.08
61.63	30.3	63.15	39.3
56.79	48.7	62.60	42.2
53.90	63.4	54.68	89.0
52.70	78.6	51.17	137.3
52.23	83.6	50.43	150.0
51.09	95.0	46.62	235.5
49.28	121.0		
46.51	169.5		
44.58	220.5		
25°		40°	
81.63	13.10	93.44	8.98
81.30	13.78	91.65	13.30
73.38	25.72	86.25	25.80
65.79	48.0	81.84	36.30
65.62	49.7	80.99	39.10
64.02	56.0	80.26	43.00
58.58	89.2	75.18	58.5
55.81	119.5	69.83	93.5
52.74	162.0	68.46	103.95
49.30	232.5	63.09	154.9
		62.61	158.0
		58.10	246.0

vol %	U
24 - 27°	
100.0	0.4164
95.928	.4283
92.160	.4346
87.545	.4440
83.430	.4520

%	Q mix	%	Q mix
25°			
98.353	14950	87.545	14500
97.230	14910	87.54	14480
95.928	14860	85.09	14400
94.100	14800	83.43	14280
93.154	14780	81.76	14200
92.16	14720	80.02	14140
90.27	14660	78.37	14070
89.075	14605	76.66	14000

Sulfur dioxide (SO_2) + Diethylaniline ($C_{10}H_{15}N$)

Foote and Fleischer, 1934

mol%	p	mol%	p
0°			
10.9	1008	38.2	359
13.8	946	43.0	276
18.3	845	46.8	225
20.7	784	54.1	149
22.6	733	65.3	81
24.9	673	74.8	44
28.4	584	90.8	13
32.9	472		

Hill and Fitzgerald, 1935

mol%	p	mol%	p
25°			
100	1.5	61.84	393.1
83.05	120.8	55.47	529.5
70.92	249.0	49.75	679.5

Sulfur dioxide (SO_2) + o-Toluidine (C_7H_9N)

Hill and Fitzgerald, 1935

mol%	p	mol%	p	
25°				
100	1.0	75.00	48.7	
97.94	8.0	68.44	49.0	(sic)
95.14	16.5	63.73	50.3	
93.09	29.5	53.09	54.0	
89.95	41.5	50.56	167.6	
87.72	58.6	50.49	221.5	
83.87	86.3			(1+1)

Sulfur dioxide (SO_2) + m-Toluidine (C_7H_9N)

Hill and Fitzgerald, 1935

mol%	p	mol%	p	
15°		25°		
100	2.0	100	2.0	
86.88	25.0	87.43	42.5	
74.94	60.0	74.81	123.5	
67.33	81.5	67.33	228.5	
60.16	81.5	60.54	328.8	
56.15	81.0	53.34	327.0	
52.08	96.0	51.83	349.7	
50.33	130.5	50.49	446.0	(1+1)
50.25	395.0	50.16	701.5	

Sulfur dioxide (SO_2) + p-Toluidine (C_7H_9N)

Foote and Fleischer, 1934

t	p	
sat.sol.		
-20.50	466	(1+1) + L + V
-8.50	799	" "
0.00	1135	" "
+20.00	10	(1+1) + C_2 + V

Sulfur dioxide (SO_2) + Diphenylamine ($C_{12}H_{11}N$)

Foote and Fleischer, 1934

t	p	t	p
sat.sol.			
-21.40	267	+2.00	604
-20.80	274	6.30	674
-14.75	347	10.00	732
-9.00	429	19.64	852
-3.80	510		

Sulfur dioxide (SO_2) + o-Phenylenediamine ($C_6H_8N_2$)

Hill and Fitzgerald, 1935

mol%	p	mol%	p
25°			
97.74	3.5	60.90	17.0
93.09	4.0	55.56	16.7
81.79	4.0	51.02	17.5
74.70	4.0	50.94	69.0
67.99	4.0	50.76	740.0
64.53	15.4		
		(1+2)	(1+1)

Sulfur dioxide (SO_2) + p-Phenylenediamine ($C_6H_8N_2$)

Hill and Fitzgerald, 1935

mol%	p	mol%	p
50°			
96.80	16.0	42.83	19.0
87.00	18.0	39.48	19.5
76.34	19.5	36.42	19.0
65.69	19.5	34.67	23.0
57.90	19.0	34.35	72.5
51.99	18.5	34.22	701.0
47.01	19.0		
			(2+1)

Sulfur dioxide (SO_2) + Benzidine ($C_{12}H_{12}N_2$)

Hill and Fitzgerald, 1935

mol%	p	mol%	p
25°			
92.86	5.5	43.95	6.0
80.22	5.5	38.78	6.0
71.58	5.7	35.84	8.5
64.32	5.8	34.93	34.0
56.01	5.7	34.42	78.0
48.20	5.8	34.25	734.0

Sulfur dioxide (SO_2) + Pyridine (C_5H_5N)

Hoffman and Vander Werf, 1946

mol%	f.t.	mol%	f.t.
0.0	-72.4	49.8	-7.4
4.2	74.5	50.8	7.4
8.5	77.2	53.0	7.4
13.2	82.0	53.9	8.6
16.0	87.3	56.2	11.1
17.0	84.5	57.5	11.2
23.2	68.0	65.0	21.6
25.4	61.8	71.0	32.3
26.6	59.0	75.7	42.5
30.6	46.6	79.2	50.8
35.1	31.8	80.5	54.0
41.3	17.8	83.3	52.0
45.2	11.6	89.6	47.4
49.2	-7.0	100.0	-41.5
	(1+1)		

Sulfur dioxide (SO_2) + α -Picoline (C_6H_7N)

Hoffman and Vander Werf, 1946

mol%	f.t.	mol%	f.t.
0.0	-72.4	46.3	-20.1
2.2	74.0	46.8	20.0
4.8	75.0	48.3	19.6
5.5	75.3	49.4	19.5
7.6	76.8	50.0	19.4
8.0	76.2	51.3	19.8
9.7	66.6	53.4	21.5
12.8	57.2	55.8	24.6
13.7	51.3	59.5	30.6
16.8	43.2	62.8	36.9
16.9	42.8	64.1	39.7
20.7	36.5	66.7	44.0
21.0	36.2	68.2	47.7
22.9	33.5	70.2	52.6
25.4	29.5	71.8	55.5
29.2	25.6	73.5	59.8
29.8	25.1	75.0	63.4
33.9	20.8	76.6	69.2
35.9	19.3	77.8	73.5
36.6	18.7	79.3	78.9
39.5	17.7	79.7	78.4
40.0	17.8	80.3	77.6
40.7	17.9	81.7	74.6
41.5	17.6	83.8	73.0
42.0	18.0	90.4	67.9
43.7	18.7	100.0	-64.2
45.5	-19.5		
		(3+2)	(1+1)

Sulfur dioxide (SO_2) + β -Picoline (C_6H_7N)

Hoffman and Vander Werf, 1946

mol%	f.t.	mol%	f.t.
0.0	-72.4	53.8	-16.3
4.1	76.6	56.1	19.5
7.7	78.9	59.8	25.3
13.4	84.7	63.4	31.7
15.4	86.9	65.8	36.8
18.7	76.0	68.3	41.9
25.9	59.1	71.5	50.3
26.5	57.1	74.4	56.2
32.3	46.7	75.8	60.0
35.9	39.8	77.7	63.7
37.8	36.0	79.0	66.8
38.2	35.1	80.0	62.8
43.9	25.8	81.4	58.4
45.0	23.2	85.9	44.6
46.9	19.2	90.3	33.9
48.2	16.9	94.5	26.4
49.7	15.0	100.0	-18.3
51.5	-15.0		
	(1+1)		

Sulfur dioxide (SO_2) + γ -Picoline (C_6H_7N)

Hoffman and Vander Werf, 1946

mol%	f.t.	m.t.	mol%	f.t.	m.t.
0.0	-72.4	-	31.5	-26.6	-
1.1	73.4	-	32.2	27.0	-
2.2	74.0	-	32.7	26.4	-
3.4	74.8	-	33.5	24.8	-26.5
4.3	75.5	-	35.2	21.2	26.6
4.9	74.0	-	36.5	17.3	23.1
6.0	68.0	-	37.3	14.7	21.0
6.6	65.4	-	38.4	12.8	-
6.5	65.0	-	39.5	9.3	15.8
7.2	62.5	-	41.2	5.4	11.0
8.8	60.3	-	41.7	4.2	9.3
9.7	59.2	-	44.7	+1.5	-0.9
10.0	59.2	-	45.9	3.8	+2.3
11.4	56.4	-	46.7	4.8	-
11.8	56.4	-	49.0	5.2	-
14.5	51.2	-	49.5	5.0	-
14.8	51.5	-	50.0	5.0	-
16.1	48.0	-	51.0	4.8	-
18.0	45.0	-	54.4	3.4	0.0
18.8	43.8	-	55.9	2.3	-1.6
20.6	40.9	-	58.3	0.0	6.4
21.5	38.7	-	61.4	-5.1	25.1
23.4	35.9	-	64.0	-10.0	25.0
24.0	33.7	-	67.1	15.0	24.5
24.8	33.8	-	68.9	19.8	24.9
26.9	30.8	-38.8	69.6	24.0	-
27.8	29.1	36.9	70.0	24.9	-
28.6	27.8	36.2	72.6	20.8	24.7
29.5	28.2	-	76.0	16.5	25.0
29.7	27.8	34.2	79.8	12.5	18.8
29.9	27.0	-	83.5	8.3	14.0
30.9	27.6	-	91.0	-3.3	6.2
31.2	-27.2	-30.9	94.9	0.0	-2.1
			100.0	+3.5	-
(2+1)			(1+1)		

Sulfur dioxide (SO_2) + 2,3-Lutidine (C_7H_9N)

Hoffman and Vander Werf, 1948 (fig.)

mol%	f.t.	mol%	f.t.
0	-74	60	+8
8.7	-78.8 E	76.5	-17.5 E
20	-30	80	-13
40	+12.5	100	-9.8
50	+18.5 (1+1)		

Sulfur dioxide (SO_2) + 2,4-Lutidine (C_7H_9N)

Hoffman and Vander Werf, 1948 (fig.)

mol%	f.t.	mol%	f.t.
0	-74	50	-8.3 (1+1)
4.9	-78 E	60	-13
20	-56	70	-18
28	-50	75.1	-23.1 E
30	-45	80	-20
40	-15		

Sulfur dioxide (SO_2) + 2,6-Lutidine (C_7H_9N)

Hoffman and Vander Werf, 1948 (fig.)

mol%	f.t.	mol%	f.t.
0	-74	60	-2.0
3.7	-75.5 E	78.1	-18.0 E
20	-20	80	-16.0
40	+2	100	-5.9
50	+4 (1+1)		

Sulfur dioxide (SO_2) + Quinoline (C_9H_7N)

Hill and Fitzgerald, 1935

mol%	p	mol%	p
	25°		
100	2.0	56.11	50.5
87.50	16.3	51.82	62.4
81.65	36.2	50.95	174.1
68.34	47.0	50.46	360.0
64.36	48.2		

Sulfur dioxide (SO_2)
+ Tetramethylammonium iodide ($C_4H_{12}NI$)

Franklin, 1911

M	molar conductivity				
	-33.5°	-20°	-10°	0°	+10°
2.70	23.80	30.55	35.50	40.94	45.28
1.36	54.54	61.29	68.00	72.80	80.64
0.69	67.83	76.22	84.42	89.60	95.58
0.35	73.82	81.94	88.60	93.52	98.12
0.18	75.83	83.36	89.92	92.86	96.64

Sulfur dioxide (SO_2) + Ammonium thiocyanate (CH_4N_2S)

Walden and Centnerszwer, 1902

M	D b.t. (SO_2)
0.795	+0.275
1.91	0.495
3.30	1.055
4.66	2.410
5.81	4.610

Foote and Fleischer, 1932

t	p	t	p
(1+1)+L+V		C+L+V	
-20.40	415	+3.00	947
-19.75	426	4.00	987
-16.50	480	4.50	1007
-13.20	553	5.70	1057
-7.70	681	6.40	1085
-5.90	724	7.20	1124
-3.50	789		
0.00	874		

t	p dissoc.
(1+1)	
-20.90	201
-12.60	352
-7.50	496
-4.60	599
0.00	801

Franklin, 1911

M	molar. cond.				
	-33.5°	-20°	-10°	0°	+10°
6.0	-	-	7.30	9.37	11.51
3.88	-	-	12.53	-	-
3.04	9.70	11.93	13.81	15.37	16.69
1.54	10.55	11.83	13.16	13.72	14.37
0.78	9.42	10.17	10.82	11.13	11.33
0.40	7.99	8.52	8.63	8.77	8.88
0.20	7.38	7.42	7.75	7.70	7.52

Sulfur dioxide (SO_2) + Nitrobenzene ($C_6H_5NO_2$)

Lloyd, 1908

t	c*	t	c*
	760 mm		
15	31.14	40	13.20
20	26.74	50	9.87
25	22.79	60	7.86
30	19.00		

*c = g SO_2 in 100 cc

Sulfur dioxide (SO_2) + o-Nitrotoluene ($C_7H_7NO_2$)

Lloyd, 1908

t	c*	t	c*
	760 mm		
15	290.8	40	118.5
20	236.0	50	87.0
25	192.2	60	68.8
30	160.7		

*c = g SO_2 in 100 cc

Sulfur dioxide (SO_2) + Methyl alcohol (CH_4O)

Baume and Pamfil, 1914

mol%	f.t.	mol%	f.t.
0	-72.1	63.7	-86.3
10.5	74.7	67.7	80.8
22.8	77.9	71.2	81.2
38.0	83.0	74.7	84.0
41.6	85.2	76.0	84.0
46.0	90.2	80.8	91.5
56.1	79.3	86.4	101.5
58.7	78.5	92.2	104.0
61.3	86.3	100.0	-96.5
63.0	-89.5	(1+1)	(1+[illegible])

Lewis, 1925

%	d	%	d
	25°		
100.00	0.7872	40.89	1.0891
91.98	.8180	29.29	.1602
78.42	.8814	25.10	.1881
74.47	.8975	20.27	.2242
68.76	.9300	18.75	.2261
51.27	1.0280	18.16	.2320
44.78	1.0655	0.00	.3667

%	η	%	η
	25°		
100.00	545.7	40.89	417.8
91.98	542.2	29.29	355.8
74.47	529.5	25.10	343.3
68.76	521.5	20.27	322.3
51.27	464.1	18.16	311.8
		0.00	255.9

Sulfur dioxide (SO_2) + Ethyl alcohol (C_2H_6O)

Carius, 1855

t	d	absorption coeff.	t	d	absorption coeff.
		sat.sol.			
0	1.1194	327.80	13	0.9796	160.65
1	.1055	311.26	14	.9725	152.08
2	.0922	295.34	15	.9658	144.13
3	.0794	280.03	16	.9597	136.79
4	.0671	265.33	17	.9541	130.06
5	.0553	251.24	18	.9490	123.95
6	.0441	237.77	19	.9444	118.45
7	.0333	224.92	20	.9404	113.56
8	.0231	212.67	21	.9368	109.29
9	.0134	201.04	22	.9338	105.63
10	.0042	190.02	23	.9312	102.58
11	0.9955	179.62	24	.9292	100.15
12	.9873	169.82	25	.9277	98.33

t	d	t	absorption coeff.
4.0	1.0622	3.2	276.76
11.6	0.9880	5.8	239.66
16.0	.9527	11.0	176.93
20.1	.9402	14.0	149.98
23.5	.9282	17.0	129.33
		20.0	114.50
		24.4	97.43

Sulfur dioxide (SO_2) + Cetyl alcohol ($C_{16}H_{34}O$)

Seyer and Ball, 1925

%	f.t.	%	f.t.
0.0	-72.7	34.87	23.9
0.42	+5.3	46.39	24.8
7.70	22.2	57.46	25.5
10.42	22.6	66.27	27.8
11.20	22.7	78.93	30.9
28.34	23.8	95.85	41.6
31.18	23.5	100.00	48.0

Sulfur dioxide (SO_2) + Glycol ($C_2H_6O_2$)

Foote and Fleischer, 1934

mol%	p	mol%	p
	0°		
29.3	1055	72.8	427
32.7	1028	79.4	291
42.5	951	86.2	168
50.1	857	90.7	99.1
56.4	758	93.2	66.7
66.0	571		

Sulfur dioxide (SO_2) + Hydroquinone ($C_6H_6O_2$)

Centnerszwer and Teletow, 1903

%	f.t.	%	f.t.
0.88	63.0	7.68	134.2
1.20	73.5	9.35	136.7
2.13	89.2	11.73	141.4
4.27	117.6	12.96	145.0
5.38	123.3	100	160.0

Sulfur dioxide (SO_2) + α -Naphthol ($C_{10}H_8O$)

Foote and Fleischer, 1934

t	p
sat.sol.	
-20.00	461
-10.00	715
0.00	1066

Sulfur dioxide (SO_2) + β -Naphthol ($C_{10}H_8O$)

Foote and Fleischer, 1934

t	p
sat.sol.	
-21.20	451
-9.50	761
0.00	1124

Sulfur dioxide (SO_2) + Acetic acid ($C_2H_4O_2$)

Scheub and Mc Crosky, 1944

mol%	f.t.	mol%	f.t.
100	16.6	66.5	-40.4
92.3	11.5	53.6	-38.0
90.4	8.3	40.4	-38.7
86.9	-44.2	36.7	-39.2
82.0	-44.2	21.7	-75.6
75.3	-41.9	0.0	-72.7

Sulfur dioxide (SO_2) + Oleic acid ($C_{18}H_{34}O_2$)

Bingham, 1907

C.S.T. = 24°

Sulfur trioxide (SO_3) + Methanesulfonic acid (CH_4O_3S)

Sandeman, 1953 (fig.)

%	f.t.
100	+16
89	- 6
79	+18 (1+3)
63	- 5
17	-12
12	+11
1	+17

Selenium dioxide (SeO_2) + Ethyl alcohol (C_2H_6O)

Prideaux and Green, 1924

% L	% V	% L	% V
at b.t.			
53.6	97.18	77.5	99.28
56.5	98.99	86.7	98.86
62.1	97.16	89.8	98.52
68.6	97.35	91.4	99.74
76.3	98.26		

%	D b.t.(alcohol)	%	D b.t.(alcohol)
99.57	+0.042	81.20	+2.230
98.70	0.120	78.60	2.640
98.25	0.162	76.30	2.995
97.15	0.240	74.00	3.363
96.40	0.360	72.50	3.675
95.37	0.460	70.60	3.929
94.56	0.540	68.60	4.249
93.60	0.612	66.90	4.731
91.50	0.877	64.80	5.312
90.00	1.048	63.80	5.576
88.00	1.395	60.70	6.444
84.80	1.770	59.00	7.054
84.00	1.880		
second series			
98.41	+0.165	83.50	+1.915
97.20	0.295	82.00	2.105
95.80	0.425	80.30	2.335
94.32	0.585	78.60	2.601
92.93	0.735	75.40	3.040
91.20	0.985	72.50	3.475
89.20	1.195	69.30	3.995
87.30	1.385	67.30	4.515
85.40	1.630	64.80	5.097

Nitrous oxide (N_2O) + Ethane (C_2H_6)

Kuenen, 1895 and 1897

t	P condens.	v/v_o* V	v/v_o* L
0%			
4.8	35.2	0.0206	0.0022
13.3	43.4	.0161	-
19.9	50.8	.0125	-
25.4	-57.45	.0103	0.0027
31.5	65.3	.0076	.0031
36.0	71.9	.0047	.0047
18 vol%			
2.85	35.34 - 35.55	0.0205	0.0026
11.8	43.57 - 43.91	.0143	.0029
19.05	51.48 - 51.81	-	-
23.2	56.40 - 56.57	0.094	0.0031
29.8	65.32	.0052	.0052
25 vol%			
5.4	37.48 - 38.07	0.0177	0.0027
13.2	45.08 - 45.59	.0131	.0029
18.3	50.53 - 51.22	.0111	.0031
22.2	55.19 - 55.63	.0094	.0032
26.9	61.38 - 61.35	.0066	.0038
27.6	62.87 - 62.93	.0065	.0043
28.15	63.36 - 63.36	.0046	.0046
43 vol%			
9.8	40.59 - -	0.0150	0.0030
14.3	44.96 - 45.57	.0130	-
18.6	- - -	-	0.0034
20.5	51.75 - 52.29	0.0096	.0035
24.6	56.67 - 57.01	.0073	.0041
26.05	58.42 - 58.42	.0055	.0055
55 vol%			
6.4	35.59 - 36.86	0.0195	0.0036
11.35	40.02 - 41.05	.0164	.0038
18.4	47.02 - 48.06	.0126	.0043
25.4	54.87 - 55.46	.0084	.0050
26.05	56.12 - 56.12	.0060	.0060
76 vol%			
5.25	31.31 - 32.86	0.0217	0.00355
12.4	36.99 - 38.54	.0173	.00375
18.4	42.22 - 44.05	.0140	.00405
21.95	45.81 - 47.05	.0118	.00425
26.6	50.25 - 51.11	.0092	.00480
27.15	51.55 - 52.16	.0083	.00530
27.85	52.55 - 52.55	.0066	.00660
100 %			
5.85	27.40	0.0248	0.0033
10.65	30.45	.0215	.0034
15.40	33.80	.0184	.0036
22.40	39.70	.0140	.0038
29.35	45.90	.0103	.0046
31.00	47.60	.0089	.00495
32.00	48.80	.0064	.0064

* v_o = volume at 0° and 1 atm.

Lecat, 1949

%	b.t.
0	+15 (45 atm.)
20	+12.8 (45 atm.) Az
100	-88.6 (1 atm.)
	+28 (45 atm.)

Nitrous oxide (N_2O) + Carbon dioxide (CO_2)

Caubet, 1904

tot.vol.	vol.liq.	P	tot.vol.	vol.liq.	P
		8.094 %			
		16.5°			
10.700	-	40.36	6.101	0.306	49.35
9.167	-	44.35	4.567	0.613	49.65
7.557	dew point	48.90	1.578	1.578	51.00
		22°			
10.700	-	41.35	4.567	0.459	55.80
9.167	-	45.71	3.034	0.958	56.60
7.634	-	50.60	1.647	1.647	57.40
6.254	dew point	55.60			
		25.1°			
10.700	-	42.33	5.717	dew point	59.20
9.167	-	46.92	4.567	0.383	59.95
7.634	-	52.30	2.958	0.996	60.63
6.101	-	58.00	1.667	1.667	61.00
		27.5°			
10.700	-	42.93	5.104	dew point	62.80
9.167	-	47.60	2.881	0.996	63.50
7.634	-	52.73	1.769	1.769	63.90
6.101	-	59.30			
		30°			
10.700	-	43.64	4.644	dew point	65.90
9.167	-	48.35	3.034	0.919	67.08
7.634	-	54.06	1.884	1.884	67.10
6.101	-	60.09			
		33.5°			
10.700	-	44.42	4.567	-	69.72
9.167	-	49.65	3.954	dew point	71.10
7.634	-	55.63	2.038	2.038	72.00
6.101	-	62.50			
		35.2° (critical)			
10.700	-	44.96	4.567	-	71.00
9.167	-	50.12	3.341	dew point	73.60
7.634	-	56.40	2.268	2.268	74.50
6.101	-	63.73			
		18.941 %			
		16.4°			
11.278	-	38.84	5.623	0.297	50.12
9.394	-	43.80	3.738	0.768	50.60
7.509	dew point	49.80	1.664	1.664	51.90
		18.8°			
13.167	-	35.05	6.943	dew point	52.50
11.278	-	39.49	5.058	0.472	52.78
9.394	-	44.50	3.502	0.768	53.38
7.509	-	50.41	1.711	1.711	54.40
		23.4°			
11.278	-	40.39	4.681	0.377	58.78
9.394	-	45.86	3.267	0.848	59.20
7.509	-	52.60	1.758	1.758	59.80
5.906	dew point	58.40			
		26.4°			
13.167	-	36.82	5.152	dew point	63.00
11.278	-	41.38	3.738	0.565	63.32
9.394	-	46.99	2.512	1.225	63.95
7.509	-	54.18	1.805	1.805	64.10
5.623	-	61.76			
		28.5°			
11.278	-	41.92	4.822	dew point	65.90
9.394	-	47.68	3.738	0.565	66.22
7.509	-	54.85	2.559	1.178	66.47
5.623	-	63.14	1.852	1.852	66.80
		30.8°			
11.278	-	42.47	4.304	dew point	69.20
9.394	-	48.40	3.172	0.754	69.54
7.509	-	56.06	1.947	1.947	69.80
5.623	-	54.75			
		33.4°			
11.278	-	43.17	3.031	dew point	73.70
9.394	-	49.44	2.795	1.037	74.07
7.509	-	57.24	2.135	2.135	74.10
5.623	-	66.27			
		48.403 %			
		14.2°			
8.840	-	45.29	4.404	0.665	50.53
7.361	dew point	49.60	2.926	0.961	50.73
5.883	0.333	49.73	1.580	1.580	51.00
		17.1°			
10.318	-	41.93	5.883	0.148	53.44
8.840	-	46.08	4.404	0.591	53.69
7.361	-	50.71	2.704	0.961	53.94
6.696	dew point	53.10	1.595	1.595	54.30
		18.8°			
8.840	-	46.25	4.404	0.517	55.41
7.361	-	51.29	2.704	1.035	55.91
6.400	dew point	55.00	1.632	1.632	56.40
5.143	0.295	55.20			
		21.3°			
8.840	-	47.37	4.404	0.295	58.59
7.361	-	52.58	2.778	0.924	58.80
5.883	dew point	58.40	1.743	1.773	59.60
		26°			
8.840	-	49.42	3.369	0.591	65.98
7.361	-	54.92	2.408	1.109	66.51
5.883	-	61.29	1.810	1.810	66.70
4.774	dew point	65.70			
		28.4°			
8.840	-	49.95	4.330	dew point	69.00
7.361	-	55.63	3.295	0.554	69.35
5.883	-	62.49	2.189	1.552	69.63
4.404	-	68.75	1.869	1.869	69.90
		30.2°			
8.840	-	50.47	3.739	dew point	71.90
7.361	-	56.62	2.926	0.739	72.10
5.883	-	63.70	1.965	1.965	72.80
4.404	-	70.58			
		32.2°			
8.840	-	51.28	3.111	dew point	75.00
7.361	-	57.36	2.630	0.887	75.23
5.883	-	64.78	2.135	2.135	75.70
4.404	-	71.80			
		78.682 %			
		13.6°			
10.455	-	40.73	5.911	0.262	50.75
9.581	-	43.02	3.465	0.874	50.75
8.707	-	45.70	2.504	1.136	50.80
7.834	-	48.58	1.587	1.587	51.50
7.659	dew point	50.57			
		15.3°			
6.698	dew point	52.82	3.552	1.048	52.95
5.649	0.349	52.92	2.679	1.281	52.95
3.989	0.612	52.92	1.630	1.630	53.80
		18.3°			
13.950	-	33.64	6.174	dew point	56.20
12.202	-	37.06	4.339	0.480	56.38
10.455	-	41.70	2.635	1.005	56.58
8.707	-	46.99	1.674	1.674	57.20
6.960	-	52.94			
		23°			
10.455	-	42.88	3.552	0.699	62.99
8.707	-	48.98	2.242	1.395	63.19
6.960	-	55.38	1.761	1.781	63.40
5.256	dew point	62.60			

		25°			
9.581	-	46.20	5.212	-	64.11
8.707	-	49.28	4.776	dew point	65.80
7.834	-	52.66	4.077	0.349	65.88
6.960	-	56.39	3.115	0.743	66.08
6.086	-	60.52	1.805	1.805	66.10
		26.4°			
8.707	-	49.75	4.513	dew point	67.80
6.960	-	57.32	3.290	0.612	67.80
6.086	-	61.16	2:504	1.136	68.00
5.212	-	65.09	1.875	1.875	68.10
		29°			
10.455	-	44.75	3.902	dew point	71.70
8.707	-	50.90	2.941	0.786	72.00
6.960	-	58.83	2.154	1.717	72.00
5.212	-	66.71	2.006	2.006	72.00
		92.579 %			
		16.2°			
12.950	-	34.97	6.600	dew point	53.80
11.096	-	39.43	4.605	0.510	54.64
9.243	-	44.63	3.214	1.8347	54.88
7.388	-	50.93	1.591	1.591	54.90
		18.6°			
12.950	-	35.46	5.997	dew point	56.60
11.098	-	39.97	4.605	0.463	56.87
9:243	-	45.23	2.565	0.927	57.07
7.388	-	51.83	1.637	1.637	57.60
		21.4°			
12.950	-	36.01	5.533	dew point	60.80
11.098	-	40.57	3.492	0.695	61,25
9.243	-	46:23	2.658	0.988	61.47
7.388	-	53.20	1.684	1.684	61.60
		23°			
12.950	-	36.33	5.533	-	61.55
11.098	-	40.95	5.162	dew point	62.80
9.243	-	46.65	3.678	0.556	63.51
7.388	-	53.89	1.730	1.730	63.60
		26.6°			
12.950	-	37.16	4.420	dew point	68.65
11.098	-	41.96	3.492	0.403	68.87
9.243	-	48.00	2.379	1.252	68.87
7.388	-	55.63	1.823	1.823	68.97
5.533	-	64.23			
		29°			
12.950	-	37.54	5.533	-	65.27
11.098	-	42.36	3.771	dew point	72.20
9.243	-	48.46	1.962	1.962	72.20
7.388	-	56.20			
		37.7° (critical)			
12.950	-	37.88	5.533	-	66.58
11.098	-	42.88	3.678	-	74.10
9.243	-	49.22	3.121	dew point	74.50
7.388	-	57.07	2.287	2.287	74.70
		95.915 %			
		16.5°			
10.533	-	41.68	4.496	0.453	55.07
9.013	-	46.09	2.914	0.904	55.21
7.515	-	50.80	1.553	1.553	55.57
6.458	dew point	54.67			
		20.2°			
10.533	-	42.61	5.703	dew point	59.60
9.013	-	47.09	4.043	0.528	59.80
7.515	-	52.33	2.534	1.056	59.80
6.005	-	59.05	1.628	1.628	60.10
		23.3°			
10.533	-	43.39	5.024	dew point	63.58
9.013	-	48.33	3.817	0.528	63.80
7.515	-	53.74	2.421	1.056	64.08
6.005	-	60.16	1.704	1.704	64.25
		26.5°			
10.533	-	44.43	4.496	-	68.39
9.013	-	49.39	4.232	dew point	68.70
7.515	-	55.06	3.741	0.754	68.70
6.005	-	61.73	1.817	1.817	68.70

		28.4°			
10.533	-	45.04	4.496	-	70.21
9.013	-	50.00	3.892	dew point	71.50
7.515	-	56.17	1.930	1.930	71.70
6.005	-	63.39			
		30.7° (critical)			
10.533	-	45.45	4.496	-	72.03
9.013	-	50.77	3.213	dew point	74.30
7.515	-	56.98	2.156	2.156	74:50
6.005	-	64.36			
		97.803 %			
		15.3°			
12.681	-	35.716.6896.689		dew point	53.20
10.868	-	40.12	5.418	0.772	53.60
9.051	-	45.27	3.601	0.772	53.90
7.234	-	51.65	1.603	1.603	54.50
		19°			
12.681	-	36.37	5.963	dew point	57.90
10.868	-	40.92	3.420	0.817	58.20
9.051	-	46.27	1.966	1.453	58.50
7.234	-	52.73	1.658	1.658	58.70
		23.2°			
12.681	-	37.30	5.055	dew point	64.1
10.868	-	42.00	3.601	0.545	64.1
9.051	-	47.70	2.330	1.181	64.1
7.234	-	54.88	1.712	1.712	64.1
5.418	-	62.75			
		27.4°			
12.681	-	32.23	5.418	-	65.31
10.868	-	43.20	4.055	dew point	70.13
9.051	-	49.13	2.693	0.999	70.30
7.234	-	56.77	1.921	1.921	70.33
		30.8° (critical)			
12.681	-	38.80	7,234	-	57.99
10.868=	-	43.84	5.418	- -	67.24
9.051	-	49.90	2.330	2.330	74.30

critical point

%	vol.	t	P
18.941	2.889	34.4	75.8
48.403	2.667	33.0	76.8
78.682	2,766	31.2	75.8

Cook, 1953

t	P						
	0.0*	25.8*	50.0*	61.7*	74.2*	88.1*	100.0*
20	49.76	53.88	52.17	54.66	55.31	56.01	54.43
21	-	55.18	53.39	55.90	56.67	57.34	-
22	52.10	56.42	54.60	57.25	57.91	58.68	59.16
23	-	57.65	55.78	58.49	59.25	60.05	-
24	54.49	58.98	57.08	59.80	60.60	61.41	61.97
25	-	60.30	58.31	61.18	62.02	62.88	-
26	56.98	61.39	59.60	62.59	63.46	64.15	64.89
27	-	63.07	60.85	64.05	64.91	65.79	-
28	59.53	64.47	62.25	65.53	66.39	67.31	67.90
29	-	65.97	63.64	67.03	67.93	68.85	-
30	62.16	67.38	65.06	68.53	69.46	70.37	71.11
31	-	68.93	66.49	70.04	71.05	72.00	-
32	64.88	70.40	67.98	71.57	-	-	-
33	-	-	69.46	-	-	-	-
34	67.67	-	71.07	-	-	-	-

* in mol %

Previous Page

Cook, 1953

t	d(moles/l) V	L	V	L	V	L
	0.0mol%		25.8mol%		50.0mol%	
20	3.61	17.93	3.88	18.00	4.09	17.89
21	3.75	17.74	4.03	17.78	4.25	17.68
22	3.86	17.56	4.19	17.57	4.42	17.48
23	4.02	17.38	4.35	17.36	4.60	17.24
24	4.16	17.18	4.52	17.14	4.79	17.00
25	4.32	16.93	4.71	16.90	5.01	16.73
26	4.48	16.68	4.92	16.65	5.24	16.44
27	4.63	16.45	5.13	16.37	5.50	16.12
28	4.84	16.18	5.38	[illegible]	5.78	15.77
29	5.07	15.90	5.65	15.72	6.13	[illegible]
30	5.29	15.61	5.96	15.32	6.55	14.93
31	5.59	15.27	6.33	14.88	7.08	14.29
32	5.91	14.93	6.80	14.37	7.84	14.38
33	6.29	14.49	7.42	13.69	-	-
34	6.72	14.04	8.58	12.47	-	-
35	7.38	13.36	-	-	-	-
36	8.54	12.06	-	-	-	-
	74.2mol%		88.1mol%		100.0mol%	
20	4.29	17.72	4.35	17.58	4.37	17.60
21	4.46	17.47	4.52	17.34	4.58	17.34
22	4.64	17.20	4.71	17.09	4.79	17.07
23	4.83	16.95	4.92	16.82	5.02	16.77
24	5.07	16.67	5.16	16.53	5.26	16.45
25	5.32	16.37	5.42	16.23	5.53	16.12
26	5.58	16.03	5.72	15.90	5.80	15.76
27	5.90	15.68	6.05	15.53	6.16	15.36
28	6.26	15.28	6.45	15.11	6.55	14.92
29	6.71	14.80	6.93	14.57	7.07	14.36
30	7.29	14.18	7.58	13.83	7.75	13.60
31	8.11	13.19	-	-	-	-

Fuchs, 1918

vol%	% Dv	vol%	% Dv
	19.5°	716 mm	
100	0	40	1.17
90	0.38	30	1.02
80	0.85	20	0.64
70	1.17	10	0.41
60	1.34	0	0
50	1.42		

Nitrous oxide (N_2O) + Cyanogen (C_2N_2)

Pannetier and Sigard, 1955 (fig.)

%	infl.p.* in A	in B	%	infl.p.* in A	in B
56	-	500	30	50	54
55	500	400	20	65	70
53.5	280	200	15	100	100
53	190	180	10	200	165
50	100	180	8	300	220
45	70	90	7	600	350
40	58	60	6	-	600

* inflammability pressure (in mm)
in A : in tube of 15 mm in B : in tube of 25mm

Nitric oxide (NO) + Methyl ether (C_2H_6O)

Baum and Germann, 1911

mol%	f.t.	mol%	f.t.
100	-138.4	43.3	-159.0
91.0	139.5	38.8	162.4
84.7	141.9	33.5	165.9
79.2	146.6	29.3	166.7
74.0	143.3	26.3	167.4
69.4	144.6	23.3	167.7
65.6	145.7	20.4	169.1
64.8	147.2	17.1	169.9
58.6	148.7	11.2	170.6
55.9	150.4	10.6	169.0
52.0	-153.2	0	-160.9

Dinitrogen tetroxide (N_2O_4) + Bromoform ($CHBr_3$)

Pascal, 1923

%	f.t.	m.t.	%	f.t.	m.t.
100	+9	+9	30	-12	-13.5
95.2	+7.5	+6.8	21.5	-13.5	-13.5
90.5	+5.8	+4.7	20.5	-13	-13.5
80	+2.5	+1	14.2	-12	-13.5
69.5	-0.5	-8	10	-11	-13.5
60	-3.5	-13.5	5.4	-10.5	-12
50	-6.0	-13.5	0	-10.2	-10.2
40	-9.0	-13.5			

Dinitrogen tetroxide (N_2O_4) + Carbon tetrachloride (CCl_4)

Pascal, 1923

%	f.t.	m.t.	%	f.t.	m.t.
100	-23.5	-23.5	40.0	-20.5	-49
98.2	31.5	36.5	30.0	17	31
96.0	38.5	43.5	22.5	14	22
91.5	49.0	49.0	10.0	11	13
85.0	43.5	49.0	0.0	-10.2	-10.2
70.5	-34.5	-49.0			

Dinitrogen tetroxide (N_2O_4) + Ethylene bromide ($C_2H_4Br_2$)

Frankland and Farmer, 1901

%	D b.t.	%	D b.t.
1.70	+0.134	12.71	+1.102
4.66	.387	18.54	1.650
7.24	.620	23.35	2.127
9.49	.824		

Dinitrogen tetroxide (N_2O_4) + Propylic ether ($C_6H_{14}O$)

Whanger and Sisler, 1953 (fig.)

mol%	f.t.	m.t.	mol%	f.t.	m.t.
0	-10	-	73	-77	-77
20	-18	-	80	-78	-
40	-27	-	90	-85	-114 -126
60	-50	-78	100	-122	-114(II)

(1+2) (?) f.t.= -77.5°

E (I) : above 95 % = -114

E (II): above 95 % = -126

Dinitrogen tetroxide (N_2O_4) + Isopropylic ether ($C_6H_{14}O$)

Whanger and Sisler, 1953 (fig.)

mol%	f.t.	E	mol%	f.t.	E
0	-10	-	73	-65	-65
20	16	-	80	66	-
40	24	-	90	74	-85
60	43	-	95	85.5	-85.5
65	-54	-65 (1+2)	100	-85	-

Dinitrogen tetroxide (N_2O_4) + Butyl ether ($C_8H_{18}O$)

Whanger and Sisler, 1953 (fig.)

mol%	f.t.	E	mol%	f.t.	E
0	-10	-	80	-80	-80
20	15	-	90	85	95
40	27	-	95	95.5	95.5
60	46	-80	100	-95	-95
76	-80	-80 (1+2)			

Dinitrogen tetroxide (N_2O_4) + tert. Butyl ether ($C_8H_{18}O$)

Whanger and Sisler, 1953 (fig.)

mol%	f.t.	mol%	f.t.
0	-10	80	-45
20	13	91	-62 E
40	24	100	-60
60	-32		

Dinitrogen tetroxide (N_2O_4) + Acetylene tetrabromide ($C_2H_2Br_4$)

Frankland and Farmer, 1901

%	D b.t.
2.47	+0.101
7.38	.340
12.71	.607
16.08	.743

Dinitrogen tetroxide (N_2O_4) + Benzyl chloride (C_7H_7Cl)

Frankland and Farmer, 1901

%	D b.t.	%	D b.t.
1.21	+0.139	10.36	+1.289
3.99	.476	12.87	.627
5.51	.662	15.04	.926
7.50	.916		

Dinitrogen tetroxide (N_2O_4) + Trimethylene oxide (C_3H_6O)

Sisler and Perkins, 1956 (fig.)

mol%	f.t.	E	mol%	f.t.	E
0	-10	-	58	-58	-
20	20	-	60	56	-58.5
40	45	-	65	53	(1+2)
42	53	-	80	67	80.5
43	55.4	-55.4	86.5	80.5	80.5*
48	55	-55.4	87	85	99.8
50	53	(1+1)	94	-99.8	-99.8
57	-58.5	-58.5	100	-99	*tr.t.

Dinitrogen tetroxide (N_2O_4) + Glycol-diethyl ether ($C_6H_{14}O_2$)

Whanger and Sisler, 1953 (fig.)

mol%	f.t.	m.t.	mol%	f.t.	m.t.
0	-10	-	80	-60	-77
20	20	-	90	68	-74
40	45	-59	95	74	-74
46	59	-59	100	-73	-
60	-60	-60	(1+1)	(1+2)	

Dinitrogen tetroxide (N_2O_4) + Methyltetrahydrofurane -α ($C_5H_{10}O$)

Whanger and Sisler, 1953 (fig.)

mol%	f.t.	mol%	f.t.
0	-10	66	-50.5 (1+2)
25	-27	80	-60
40	-43	95	-95
50	-65.5 E		

Dinitrogen tetroxide (N_2O_4) + 2,5-Dimethyltetrahydrofurane ($C_6H_{12}O$)

Sisler and Perkins, 1956

mol%	f.t.	E	mol%	f.t.	E
0	-10	-	45	-52	-80
30	-45	-	67	-34	-
36	-80	-80	92	-67	-
					(1+2)

Dinitrogen tetroxide (N_2O_4) + Perfluortetrahydrofurane (C_4F_8O)

Whanger and Sisler, 1953 (fig.)

mol%	f.t.	mol%	f.t.
0	-10	60	-17
20	-12	80	-25
40	-13	98	-65
		100	vitreous

Dinitrogen tetroxide (N_2O_4) + 1,3-Dioxane ($C_4H_8O_2$)

Whanger and Sisler, 1953

mol%	f.t.	mol%	f.t.
0	-10	60	0
22	-26 E	80	-20
40	-1	91	-45.5 E
50	+2 (1+1)	100	-42

Dinitrogen tetroxide (N_2O_4) + 1,3-Dioxolane ($C_3H_6O_2$)

Sisler and Perkins, 1956

mol%	f.t.	E	mol%	f.t.	E
0	-10	-	65	-52	-
25	-30	-	82	-90	-
26	-35	-	88	-93	-
30	-32.2	-39.2	92	-108.4	-108.4
40	-34.7	-	93	-102	-108.4
45	-35	-	100	-95.8	-

(3+2)

Dinitrogen tetroxide (N_2O_4) + Trioxymethylene ($C_3H_6O_3$)

Whanger and Sisler, 1953 (fig.)

mol%	f.t.	E	mol%	f.t.	E
0	-10	-	50	+1	-10
20	-21	-	60	+20	-
26	-29	-29	70	+35	-
40	-12	-	100	+63-64	-
44	-10	-10			

(1+1)

Dinitogen tetroxide (N_2O_4) + Camphor ($C_{10}H_{16}O$)

Pascal and Garnier, 1923

%	f.t.	E	min.
0	-10.2	-10.2	-
5	10.8	12.0	-
10.1	12.5	16.5	-
18.0	15.5	24.5	-
25.0	21.5	42.5	-
29.3	29	60	1
35.0	37.6	60	2.5
37.4	46.5	60	3
40.2	60	60	2.9
47.0	56.5	60	2
50.0	53.5	60	1.5
55.0	52.3	60	1
57.5	52.1	55.5	1
60.0	52.2	55.5	1
64.0	53.5	55.5	2
65.1	55	55.5	3
66.4	50	55.5	2
69.0	46	55.5	-
70.0	45.7	55.5	-
72.2	45.5	46.5	2.5
74.0	46.5	46.5	4
76.0	38.2	46.5	3.5
78.0	31	46.5	3
79.2	-17	-46.5	-

(5+4) f.t. = -52

(2+3) f.t. = -45.51

Dinitrogen tetroxide (N_2O_4) + Benzophenone ($C_{13}H_{10}O$)

Addison and Sheldon, 1956 (fig.)

mol%	f.t.	E	f.t.(2+1)
0	-12	-	-
6	-13	-16	-
10	-16	-	-
15	-8	-	-
20	-1	-	-
30	+8	-	-
40	12	-	+20
50	13.5(1+1)	-	+25
51	12.5	-	-
52	5 II	-	-
55	12	+12	-
58	17	12	29
61	21	12	29.2
67	28	12	29.5
70	29	29	-
80	38	-	-
90	42	-	-
100	48	-	-

Dinitrogen tetroxide (N_2O_4) + Acetic anhydride ($C_4H_6O_3$)

Addison and Sheldon, 1956 (fig.)

mol%	f.t. I	E	f.t. II	E
27	-30	-	-	-
35	38	-	-	-
39	46	-47	-	-
40	47	-	-	-
41	46	-47	-	-
50	43.5(1+1)	-	-	-
60	45	-	-	-
70	52	-	-	-
72	55	-67tr.t.	-	-
76	56	-67	-	-
80	63	-67	-	-
82	67	-76	-	-77
85	66	-76	-	-77
90	73	-76	-	-77
91	76	-	-77	-
95	74	-	-76	-77
100	-70	-	-72	-

Dinitrogen tetroxide (N_2O_4) + Ethyl acetate ($C_4H_8O_2$)

Addison and Sheldon, 1956

mol%	surfusion	f.t. A	E	f.t. B	E
36	-	-40	-	-40	-
38	-	-42	-72	-42	-
40	-	-47	-	-47	-
45	-	-57	-72	[illegible]	-
52	-	-72	-72	-78	-
55	-	-67	-	-78	-78
57	-	-68	-	-73	-
67.5	-	-64.5	-	-71.5	-
72	-	-65	-	-73	-
82	-90	-70	-84	-81	-87
83	-89	-72	-84	-84	-87
84	-	-74	-84	-83	-
85	-	-75	-84	-82	-
94	-	-84	-	-84	-
100	-	-80	-	-80	-
		(1+2)		(E)	

Dinitrogen tetroxide (N_2O_4) + Nitromethane (CH_3NO_2)

Addison, Hodge and Lewis, 1953 (fig.)

%	m.t.	f.t.	%	m.t.	f.t.
100	-29	-29	53	-	-56 E
90	-43	-33	40	-	-42
85	-47	-35	25	-57	-28
78	-57	-38	10	-28	-17
70	-	-42	0	-12	-12

%	ϰ	%	ϰ
	-10°		
99.998	0.001	60	0.05
99.5	.04	40	.02
80	.10	20	.003
70	.08	10	.001

t	ϰ	t	ϰ
	57%		
11.2	0.0703	-14.0	0.0486
1.0	.0645	-19.2	.0445
-10.0	.0525	-31.4	.0354
-12.0	.0507	-40.0	.0281
-13.0	.0495	-50.0	.0205

M (N_2O_4)	λ	M	λ
	- 10°		
0.00026	1.29	0.012	0.093
.00045	1.17	.025	.063
.00084	0.703	.051	.047
.0022	0.347	.210	.031
.0045	0.190		

Dinitrogen tetroxide (N_2O_4) + p-Tolyl cyanide (C_8H_7N)

Addison and Sheldon, 1956 (fig.)

mol%	f.t. A	E	f.t. B	E
0	-12	-	-12	-
10	-14	-	-14	-24
18	-16	-19	-16	-24
20	-19	-	-19	-
25	-12	-19	-21	-24
30	-9	-19	-16	-24
40	-3	-	-10	-
50	-1	-	-7.5	-
57	-2	-	-8	-9
60	-3 E	-	-3	-9
65	+3	-	+3	-
70	10	-	10	-
80	20	-	20	-
90	22	-	22	-
100	28	-	28	-
	(1+1)		(1+2)	

Dinitrogen tetroxide (N_2O_4) + Nitrosodiethylamine ($C_4H_{10}N_2O$)

Addison and Conduit, 1952 (fig.)

mol%	η (centistokes)						
	10°	0°	-7°	-15°	-23°	-28°	-33°
40.0	1.0	1.2	1.4	1.7	2.2	2.5	3.1
50.6	1.2	1.7	2.0	2.5	3.0	3.7	4.4
61.6	1.6	1.9	2.3	3.0	3.75	4.6	5.5
67	1.65	1.95	2.35	3.05	3.9	4.7	5.55
79	1.7	2.0	2.3	2.95	3.8	4.25	5.1
100	1.65	1.8	1.9	2.5	3.1	3.3	3.8

mol%	κ						
	10°	0°	-7°	-15°	-23°	-28°	-33°
40.0	2.620	2.350	2.165	1.945	1.735	1.600	1.465
50.6	.490	.155	1.925	.655	.390	1.225	1.055
61.6	.660	.285	2.025	.715	.410	1.210	1.020
72.2	.165	1.840	1.610	.355	.120	0.975	0.830

Dinitrogen tetroxide (N_2O_4) + Nitrobenzene ($C_6H_5O_2N$)

Frankland and Farmer, 1901

%	D b.t.	%	D b.t.
1.85	+0.215	7.31	+0.841
2.92	.317	9.41	1.105
4.20	.464	11.91	1.457
5.48	.612	18.03	2.394

Dinitrogen tetroxide (N_2O_4) + o-Nitrotoluene ($C_7H_7O_2N$)

Breithaupt, 1910

mol%	f.t.	mol%	f.t.
100	-7.0	66.01	-30.5
99.95	8.5	63.52	32.4
92.60	9.5	60.04	36.0
89.48	10.5	56.99	41.3
85.91	12.2	54.64	45.9
84.98	14.8	50.60	46.0
83.52	14.8	50.17	47.0
82.18	15.6	47.49	51.1
80.64	21.5	45.00	50.9
79.51	17.3	43.61	52.0
76.72	18.3	41.71	50.15
73.75	20.8	32.50	49.5
71.56	23.2	30.43	48.5
70.04	24.8	25.01	43.0
69.01	26.5	22.48	41.5
66.80	-30.3	20.53	-39.2

Nitric anhydride (N_2O_5) + Carbon tetrachloride (CCl_4)

Lewis and Smyth, 1939

mol%	d	ε
	25°	
100.000	1.5844	2.223
94.066	.5813	.368
91.376	.5800	.435
90.639	.5793	.452
89.757	.5790	.473

Chlorine heptoxide (Cl_2O_7) + Carbon tetrachloride (CCl_4)

Zinoviev and Rosolovskii, 1956

mol%	f.t.	E	tr.t.
0.0	-90	-	-100
3.4	91	-	98
11.3	89	-94	100
17.7	72	92	100
21.4	62	94	103
30.6	63	91	108
31.8	-	94	104
36.3	59	93	101
39.2	57	94	106
51.5	54	93	-
61.3	51	92	104
76.6	49	96	105
79.4	49	94	102
83.4	44	93	105
85.4	-	96	-
88.9	35	94	47.4
97.6	24	-95	47.0
100.0	-22.9	-	-47.4

Nitrosyl chloride (NOCl) + Benzene (C_6H_6)

Meisel , 1925 (fig.)

mol%	f.t.
0	-60
2.2	-67 E
47.4	0
50	+1 (1+1)

Nitrosyl chloride (NOCl) + Ether ($C_4H_{10}O$)

Meisel, 1923 (fig.)

mol%	f.t.
0	-61
20	-145
50	-156
60	-134
75	-122

Nitrosyl chloride (NOCl) + Acetophenone (C_8H_8O)

Meisel, 1923 (fig.)

mol%	f.t.
0	-61
16.7	-65 E
50	-10 (1+1)

Nitrosyl chloride (NOCl) + Acetic acid ($C_2H_4O_2$)

Meisel, 1923

Rectilinear f.t. curve

Phosphorus oxychloride ($POCl_3$) + Benzene (C_6H_6)

Traube, 1895

%	d
20°	
100.000	0.88235
97.764	.89213
94.201	.90718
90.545	.92411
71.039	1.02167
68.362	1.03678

Phosphorus oxychloride ($POCl_3$) + Chloroform ($CHCl_3$)

Andrieth and Steinman, 1941 (fig.)

mol%	Q diss.	mol%	Q diss.
3°			
20	375	45	470
28	430	59	420
42.9	482	65	325
44	460	72	300

Phosphorus oxychloride ($POCl_3$) + 1-Methyl malate ($C_6H_{10}O_5$)

Grossmann and Landau, 1910

c*	(α) red	yellow	green	pale blue	dark blue	viol.
20°						
50.745	-2.63	-3.00	-	-3.80	-	-
5.043	-0.71	-0.91	-1.08	-1.29	-1.37	-1.50

*c = g $POCl_3$ in 100 cc

Phosphorus oxychloride ($POCl_3$) + Ethyl tartrate ($C_8H_{14}O_6$)

Grossmann and Landau, 1910

c*	(α) red	yellow	green	pale blue	dark blue	viol.
20°						
51.104	+6.34	+6.73	+6.69	+4.97	+3.70	+1.55
25.552	6.46	7.01	6.81	+5.21	+4.30	-
12.776	6.18	6.65	6.34	+4.93	+4.15	-
5.046	4.16	4.95	3.77	+1.19	-0.40	-1.78
2.523	+1.19	+2.77	+0.40	-2.38	-3.96	-

Thionyl chloride ($SOCl_2$) + Cyclohexane (C_6H_{12})

Locket, 1932

mol%	d	η	mol%	d	η
25°					
100.0	0.7739	882.4	19.4	1.4018	618.3
72.8	0.9410	720.1	6.3	.5452	615.6
53.4	1.0832	663.4	0.0	.6284	619.4

mol%	Q mix.	mol%	Q mix.
87.9	-117.0	24.4	-178.1
78.4	182.6	20.7	157.2
70.7	214.1	16.3	131.1
64.5	235.4	11.3	96.2
59.2	-244.6	5.9	-53.7

Thionyl chloride ($SOCl_2$) + Benzene (C_6H_6)

Locket, 1932

mol%	d	η	mol%	d	η
25°					
100.0	-	596.1	31.4	1.3585	606.8
81.9	0.9895	596.2	12.3	.5172	616.5
63.4	1.1161	599.9	0.0	.6284	619.4
51.9	1.2011	602.0			

mol%	Q mix.	mol%	Q mix.
89.6	+ 34.0	28.1	78.2
81.0	55.5	23.7	70.7
74.0	70.6	19.0	60.5
68.0	81.2	13.3	45.5
62.7	87.7	7.1	+ 26.2

Thionyl chloride ($SOCl_2$) + Toluene (C_7H_8)

Locket, 1932

mol%	d	η	mol%	d	η
25°					
100.0	-	546.0	28.0	1.3544	622.3
73.9	1.0116	583.2	19.8	.4278	625.0
57.4	.1214	601.9	7.7	.5460	623.6
44.1	.2206	613.9	0.0	.6284	619.4

mol%	Q mix.	mol%	Q mix.
87.4	+65.7	24.4	+118.6
77.6	110.4	20.6	104.9
69.8	135.2	16.3	87.1
63.4	151.3	11.5	65.2
58.1	+159.0	6.0	+37.2

Thionyl chloride ($SOCl_2$) + Xylene (C_8H_{10})

Locket, 1932

mol%	d	η
25°		
100.0	-	606.7
74.2	0.9859	641.9
48.9	1.1500	657.2
21.1	.3891	651.5
0.0	.6284	619.4

mol%	Q mix.	mol%	Q mix.
85.8	94.8	22.3	140.8
75.2	142.3	18.7	123.6
66.9	175.7	14.7	101.1
60.3	192.0	10.3	73.8
54.8	201.5	5.4	40.5

Thionyl chloride ($SOCl_2$) + Mesitylene (C_9H_{12})

Locket, 1932

mol%	d	η	mol%	d	η
25°					
100	0.8611	651.8	42.9	1.1751	693.9
76.6	0.9674	685.0	25.7	.3236	677.0
68.6	1.0099	690.8	10.0	.4925	649.5
56.8	1.0811	695.2	0.0	.6284	619.4

mol%	Q mix.	mol%	Q mix.
83.5	121.6	20.3	159.0
71.8	180.0	16.9	136.9
62.6	208.0	13.3	111.3
55.6	220.0	9.2	79.9
50.2	222.5	4.7	43.3

Thionyl chloride ($SOCl_2$) + Chloroform ($CHCl_3$)

Andrieth and Steinman, 1941 (fig.)

mol%	Q mix.	mol%	Q mix.
3°			
20	120	52	98
32.8	112	57	70
40	120	60	75
50	120		

Thionyl chloride ($SOCl_2$) + Ethyl acetate ($C_4H_8O_2$)

Locket, 1932

mol%	d	η	mol%	d	η
		25°			
100.0	-	426.8	30.0	1.3615	611.7
77.5	1.0283	491.1	17.0	.4719	617.7
68.4	.0854	517.4	0.0	.6284	619.4
46.6	.2346	575.9			

mol%	Q mix.	mol%	Q mix.
88.7	132.1	25.9	249.0
79.7	207.0	21.9	220.9
72.5	255.6	17.3	184.7
66.4	288.0	12.2	139.6
61.3	308.1	6.4	78.5

Thionyl chloride ($SOCl_2$) + Ethyl malate ($C_8H_{14}O_5$)

Ionesen, 1913

mol%	f.t.
0	-88
3.27	-90
8.34	-84
11.41	-74

Sulfuryl chloride (SO_2Cl_2) + Cyclohexane (C_6H_{12})

Locket, 1932

mol%	d	η
	25°	
100	0.7739	882.4
67.9	0.9956	730.3
35.3	1.2717	677.0
20.3	1.4113	669.5
0	1.6573	685.0

mol%	Q mix.	mol%	Q mix.
88.4	-106.7	27.2	-188.7
79.2	171.0	22.9	166.6
71.5	209.5	18.0	139.2
65.2	230.2	12.7	104.0
60.0	-242.5	6.7	-59.3

Sulfuryl chloride (SO_2Cl_2) + Benzene (C_6H_6)

Locket, 1932

mol%	d	η	mol%	d	η
			25°		
82.4	1.0002	617.2	26.6	1.4326	669.1
57.0	.1917	646.3	15.5	.5247	675.7
30.1	.4042	667.3	0.0	.6573	685.0

mol%	Q mix.	mol%	Q mix.
90.2	+9.9	21.9	+14.0
81.8	16.6	15.4	10.7
75.2	21.1	8.2	+5.7
69.6	+22.7		

Sulfuryl chloride (SO_2Cl_2) + Toluene (C_7H_8)

Locket, 1932

mol%	d	η	mol%	d	η
		25°			
79.3	0.9910	584.1	28.7	1.3805	664.2
62.7	1.1073	614.4	17.4	.4844	675.9
42.8	1.2615	645.7	0.0	.6573	685.0

mol%	Q mix.	mol%	Q mix.
87.3	22.0	23.7	35.3
78.2	35.2	19.0	30.4
70.4	42.0	13.5	23.5
63.9	46.0	7.3	13.6

Sulfuryl chloride (SO_2Cl_2) + Xylene (C_8H_{10})

Locket, 1932

mol%	d	η
	25°	
79.1	0.9727	641.3
47.5	1.1891	680.5
22.1	.4153	696.3
9.3	.5477	693.7
0.0	.6573	685.0

mol%	Q mix.	mol%	Q mix.
87.5	23.5	16.4	30.0
77.7	36.9	11.7	25.9
69.9	45.7	6.1	18.6

Sulfuryl chloride (SO_2Cl_2) + Mesitylene(C_9H_{12})

Locket, 1932

mol%	d	η	mol%	d	η
			25°		
100.0	0.8611	651.8	35.5	1.3388	702.8
82.8	-	673.5	33.1	-	702.5
67.7	-	688.5	19.6	-	697.6
65.9	1.0758	-	0.0	1.6573	685.0
48.5	-	699.7			

mol%	Q mix.	mol%	Q mix.
86.0	47.4	60.4	65.9
75.5	60.8	5.2	25.5
67.1	64.6		

Sulfuryl chloride (SO_2Cl_2) + Chloroform ($CHCl_3$)

Andrieth and Steinman, 1949 (fig.)

mol%	Q mix.	mol%	Q mix.
	3°		
15	150	40	169
25	168	47	166
31	166	62	125

Nitric acid (HNO_3) + Chloroform ($CHCl_3$)

Desmaroux, Chédin and Dalmon, 1939

Raman frequencies	
0 %	70 %
608 (m)	611
674 (m)	671
922 (s)	912
1295 (vs)	1303
1672 (m)	1676
3300	3300 (large OH band)

m = middle

s = strong

vs = very strong

Nitric acid (HNO_3) + Ether ($C_4H_{10}O$)

Desmaroux, Chédin and Dalmon, 1939

Raman frequencies	
0 %	70 %
608 (m)	630
674 (m)	685
922 (s)	935
1295 (vs)	1300
1672 (m)	1666

m = middle

s = strong

vs = very strong

Nitric acid (HNO_3) + Benzaldehyde (C_7H_6O)

Zhukov and Kasatkin, 1909

mol%	f.t.	mol%	f.t.
69.0	-16.5	52.6	+4.3
68.7	16.1	50.7	5.3
67.1	13.7	50.0	5.4 (1+1)
65.5	11.2	48.2	5.2
64.3	9.5	46.4	4.7
60.4	3.8	45.1	3.9
58.1	-0.7	43.3	+2.5
55.0	+2.5	39.2	-2.9
53.2	+3.9	34.0	-11.0

Nitric acid (HNO_3) + Camphor ($C_{10}H_{16}O$)

Zhukov and Kasatkin, 1909

mol%	f.t.	mol%	f.t.
70.00	+2.0	60.50	11.2
67.70	2.0	59.50	14.0
67.60	2.0	57.00	18.6
67.10	2.1	55.30	21.2
66.80	2.2	52.70	23.3
66.67	2.2 (1+2)	51.60	23.7
66.00	1.6	50.90	23.9
65.50	1.0	50.20	24.0
65.20	0.5	50.00	24.2 (1+1)
64.60	0.0 E	48.00	23.6
64.30	0.6	46.50	23.0
64.00	1.2	43.40	20.5
63.60	2.4	40.10	16.2
62.70	5.0	36.40	10.2

Nitric acid (HNO_3) + Nitrobenzene ($C_6H_5NO_2$)

Gladstone and Hibbert, 1897

%	specific refraction H_α	D	H_β
		18°	
55.57	0.2656	0.2675	0.2740
29.28	.2656	.2680	.2754
15.02	.2639	.2705	.2717

Nitric acid (NO_3H) + Acetic anhydride ($C_4H_6O_3$)

Malkova, 1954

mol%	d	mol%	d
	0°		
100.00	1.1011	47.96	1.3072
94.38	.1167	41.04	.3453
92.45	.1245	33.15	.3943
89.88	.1327	25.32	.4515
85.03	.1484	20.11	.4881
77.16	.1751	17.40	.5028
69.89	.2025	14.96	.5122
64.99	.2231	9.92	.5200
60.00	.2473	0.00	.5465
54.18	.2763		

Nitric acid (NO_3H) + Acetic acid ($C_2H_4O_2$)

Briner, Susz and Favarger, 1935

%	f.t.	%	f.t.
100	+17	46	-45.5
76	-12	26	-47.5
63.5	-27.5	0	-41.5

Miskidzhyan and Trifonov, 1947

mol%	f.t.	mol%	f.t.
100	+16.6	52	-25.0
90	+6.7	50	-24.6 (1+1)
80	-8.4	40	-28.6
75	-20.8	30	-43.1
66.7	-42.6	20	-59.1
60	-32.9	10	-47.1
55	-26.2	0	-41.1

Taylor and Follows, 1951

mol%	f.t.	mol%	f.t.
100.00	16.6	50.16	-23.9
80.45	-6.8	38.28	-30.6 (1+1)
72.88	-24.9	29.55	-45.9
67.43	-41.1	13.26	-49.9
59.58	-30.0	0.00	-41.6
50.57	-24.7		

Briner, Susz and Favarger, 1935

%	d	%	d
	24.9°		
100	1.0444	46	1.2762
76	.1463	26	.3756
57.	.2280	0	.5033

Miskidzhyan and Trifonov, 1947

mol%	d 0°	20°	40°
100	-	1.0505	1.0269
80	1.1548	.1306	.1077
66.7	.2133	.1871	.1613
60	.2440	.2167	.1890
55	.2668	.2398	.2122
50	.2894	.2628	.2344
40	.3425	.3113	.2828
30	.3873	.3562	.3265
10	.4839	.4546	.4215
0	.5473	.5127	.4742

Titov, 1954

vol%	d	vol%	d
	25°		
100	1.0482	40	1.3427
90	.1059	30	.3858
80	.1579	20	.4270
70	.2068	10	.4652
60	.2538	0	.5053
50	.3015		

Malkova, 1954

vol%	d	vol%	d
	0°		
0.00	1.0708	53.90	1.3499
10.11	.1260	57.04	.3642
10.13	.1270	59.60	.3758
20.08	.1808	62.98	.3905
29.91	.2320	66.02	.4042
39.83	.2822	69.99	.4211
44.76	.3065	74.90	.4419
47.82	.3213	80.15	.4624
50.85	.3358	100.00	.5468

Briner, Susz and Favarger, 1935

%	η	%	η
	24.9°		
100	1234	46	1745
76	1835	26	1275
57	1837	0	761

Miskidzhyan and Trifonov, 1947

mol%	η 0°	η 20°	η 40°
100	1757	1183	818
80	2094	1716	1063
66.3	3538	1950	1189
60	3585	1965	1205
55	3546	1942	1193
50	3397	1895	1166
40	2926	1703	1088
30	2284	1448	970
10	1428	1071	714
0	1223	946	715

Miskidzhyan and Trifonov, 1947

mol%	σ 0°	σ 20°	σ 40°
100	-	27.59	25.82
80	32.46	30.36	28.18
66.7	34.06	32.13	29.69
60	35.15	32.88	30.35
55	35.91	33.72	31.12
50	36.50	34.15	31.70
40	38.10	35.57	32.97
30	39.02	36.58	34.23
10	42.13	39.61	36.16
0	43.56	41.15	37.76

mol%	n_D 5°	n_D 35°	mol%	n_D 5°	n_D 35°
100	-	1.3636	50	1.3963	1.3867
80	1.3849	.3768	40	.3990	.3881
66.7	.3909	.3816	30	.4007	.3899
60	.3932	.3837	10	.4017	.3907
55	.3949	.3849	0	.4030	.3910

Taylor and Follows, 1951

mol %	κ	mol %	κ
		0°	
0.000	359.3	63.19	4.705
6.088	204.3	66.47	3.186
12.28	130.3	67.76	2.668
16.62	100.5	70.83	1.826
20.85	86.29	70.92	1.815
26.31	72.85	72.39	1.479
31.74	58.95	72.84	1.360
34.94	50.69	75.74	0.906
44.24	27.97	76.12	0.822
53.49	12.79	79.83	0.448
57.73	8.369	83.05	0.247
61.05	5.624		
		25°	
53.24	22.33	73.35	2.680
57.57	15.16	74.50	2.256
62.29	9.538	75,30	2.006
66.01	6.379	75.74	0.906
67.76	5.668	76.12	0.822
68.20	4.967	79.83	0.448
70.73	3.621	83.05	0.247
70.83	1.826	85.21	0.3948
70.92	1.815	92.17	0.0792
72.39	1.479	94.58	0.0320
72.84	1.360	97.00	0.00695
		40°	
0.00	373.9	49.81	35.06
3.045	285.2	54.07	25.33
8.996	178.9	69.24	5.987
15.18	132.2	72.49	4.118
19.39	119.5	75.03	2.963
24.94	108.0	77.18	2.222
25.49	106.4	78.93	1.681
28.81	98.55	80.56	1.360
32.84	86.95	80.94	1.069
37.02	73.72	88.15	0.286
41.70	58.51	93.16	0.0696
45.80	45.98	95.97	0.0234

Perchloric acid ($HClO_4$) + Acetic acid ($C_2H_4O_2$)

Usanovich and Sumarokova, 1947

mol%	d 20°	d 35°	d 50°
0.00	1.7716	-	1.7312
17.05	.7253	1.7016	.6794
28.08	.6799	.6601	.6391
36.05	.6463	.6254	-
48.83	.5746	.5599	.5395
55.16	.5322	.5153	.4959
67.46	.4293	.4135	.3986
79.71	.3069	.2930	.2778
87.86	.2132	.1999	.1883
95.35	.1176	.0991	.0859
100.00	-	-	.0162

mol%	η 20°	η 35°	η 50°
6.06	565	477	416
17.05	1140	900	730
28.08	2900	2140	1583
36.05	5903	3970	2694
48.83	23878	12262	6853
55.16	40805	18832	9770
67.46	61933	26032	12680
79.71	26534	11457	6070
87.86	7112	5627	2492
95.35	1713	1224	892

mol%	κ 20°	κ 35°	κ 50°	
0.00	25.6	-	542.7	
6.06	433.4	492.8	675.7	
17.05	484.5	584.8	591.9	
28.08	362.7	476.9	427.3	
36.05	245.6	335.6	236.1	
48.83	87.5	147.8	168.1	
55.16	52.9	99.5	131.8	
67.46	34.5	72.0	152.5	
79.71	47.2	92.5	159.9	
87.86	67.8	113.3	88.7	
95.35	45.1	64.2		
			(1+1)	(1+2)

Perchloric acid ($HClO_4$) + Monochloracetic acid ($C_2H_3O_2Cl$)

Usanovich and Sumarokova, 1947

mol%	d 20°	d 35°	d 60°
5.60	1.7705	1.7434	-
22.25	.7393	.7109	1.6690
30.10	.7171	.6934	.6523
37.26	.6957	.6741	.6326
47.69	.6655	.6391	.6018
63.28	.6134	.5911	.5519
67.27	.5932	.5705	.5319
76.66	-	.5223	.4839

mol%	η 20°	η 35°	η 60°
5.60	543	413	-
12.95	796	631	450
22.25	127	958	652
30.10	1859	1333	839
37.26	2718	1859	114
47.69	4462	2797	-
57.39	7350	4147	1971
63.28	8919	4796	2160
67.27	11280	5772	2441
76.66	-	5881	2365
82.33	-	-	2305
95.36	-	-	1607

mol%	κ 20°	κ 35°	κ 60°
5.60	348.3	371.2	-
12.95	526.1	599.4	677.7
22.25	522.3	636.0	753.0
30.10	493.3	611.1	777.8
37.26	391.9	504.2	722.5
47.69	245.1	337.0	490.9
57.39	143.6	213.3	352.5
63.28	112.2	178.7	300.8
67.27	85.0	141.0	252.2
76.66	-	84.9	156.4
82.33	-	-	137.0
95.36	-	-	24.3

Perchloric acid ($HClO_4$) + Dichloracetic acid ($C_2H_2O_2Cl_2$)

Sumarokova and Usanovich, 1947

mol%	d 20°	d 35°	d 60°
3.51	1.7663	1.7372	1.7079
13.51	.7431	.7164	.6875
20.48	.7273	.7043	.6754
31.25	.7046	.6814	.6530
43.24	.6825	.6585	.6310
49.64	.6629	.4653	.6206
61.59	.6436	.6203	.5966
75.68	.6037	.5821	.5603
91.58	.5690	.5499	.5306

mol%	η 20°	η 35°	η 60°
3.51	470	390	342
13.51	639	524	438
20.48	791	627	512
31.25	1101	840	661
43.24	1711	1215	915
49.64	2080	1452	1062
61.59	2876	1924	1360
75.68	3643	2354	1611
91.58	4088	2602	1787

mol%	κ 20°	κ 35°	κ 60°
0	59.6	-	-
3.31	139.6	143.1	143.5
13.51	248.9	250.4	243.5
20.48	258.7	262.0	261.8
30.25	217.7	232.0	235.4
43.24	124.8	137.9	148.7
49.64	82.8	95.8	106.2
61.59	31.9	39.3	48.8
75.68	7.2	10.5	13.6
91.58	1.2	1.8	2.6

Perchloric acid ($HClO_4$) + Trichloracetic acid ($C_2HO_2Cl_3$)

Sumarokova and Grishkin, 1946

mol%	d 20°	d 50°	d 60°
0.00	1.7716	1.7312	-
8.82	.7528	.6934	1.6691
20.29	.7348	.6756	.6560
27.76	.7230	.6680	.6490
45.61	.7033	.6540	.6355
57,75	.6980	.6465	.6260
67.81	.6910	.6420	.6210
76.26	.6880	.6393	.6177

mol%	η 20°	η 50°	η 60°
20.29	1335	893	793
27.76	1654	1059	916
45.61	-	1652	-
45.34	2859	-	1511
57.75	-	2348	1993
67.81	-	-	-
76.26	-	3414	2836
100.00	-	5323	4190

mol%	κ 20°	κ 50°	κ 60°
8.82	51.1	17.7	79.6
20.29	36.3	44.9	56.6
27.76	25.6	34.8	42.5
45.61	6.2	14.5	21.7
57.75	2.4	7.6	-
76.26	0.5	4.2	9.8

Boric acid (BO_3H_3) + Methyl alcohol (CH_4O)

P.P.Kosakewitsch and M.S.Kosakewitsch, 1933

mol%	d 12°	σ
100	0.797	23.30
97.33	.821	24.44
94.23	.847	25.20
91.65	.868	25.88

Boric acid (BO_3H_3) + Glycerol ($C_3H_8O_3$)

Hooper, 1883

c*	f.t.	c*	f.t.
20	24	50	60
24	10	56	70
28	20	61	80
33	30	67	90
38	40	72	100
44	50		

c*= g BO_3H_3 in 100 cc glycerol

Boric acid (BO_3H_3) + Glucose ($C_6H_{12}O_6$)

Mehta and Kantak, 1946

mol%	f.t.
0	170
54.2 E	51.7

Boric acid (BO_3H_3) + Galactose ($C_6H_{12}O_6$)

Mehta and Kantak, 1946

mol%	f.t.
0	170
50.7 E	50.0

Boric acid (BO_3H_3) + 2-Acetyl-1-naphthol ($C_{12}H_{10}O_2$)

Neelakantam, Narayanan and Sitaraman, 1947

%	f.t.
100	102
(3+1)	220
0	170

Boric acid (BO_3H_3) + Resorcylaldehyde ($C_7H_6O_3$)

Neelakantam, Narayanan and Sitaraman, 1947

%	f.t.
100	135
(3+1)	199
0	170

Boric acid (BO_3H_3) + Gallacetophenone ($C_8H_8O_4$)

Neelakantam, Narayanan and Sitaraman, 1947

%	f.t.
100	171
(2+3)	182
(4+1)	195
0	170

Boric acid (BO_3H_3) + Resacetophenone ($C_8H_8O_3$)

Neelakantam, Narayanan and Sitaraman, 1947

%	f.t.
100	143
(4+1)	196
0	170

Boric acid (BO_3H_3) + Tartaric acid ($C_4H_6O_6$)

Mehta and Kantak, 1946

mol%	f.t.
0	170
48.5 E	51.5
complex ?	62.0

Phosphorous acid (PO_3H_3) + Dioxane ($C_4H_8O_2$)

Mezhennii , 1949

mol%	f.t.	mol%	f.t.
0.0	72.31	63.75	6.0
12.56	56.1	69.99	6.8
16.42	49.0	74.20	7.34
20.79	41.0	75.03	7.92
22.20	36.1	83.25	8.31
29.98	22.5	84.20	9.19
39.90	3.7	86.10	9.35
47.80	- 11.5	89.00	9.79
53.49	-4.0	90.80	10.11
53.79	-5.0	92.80	10.36
55.58	-2.0	98.80	11.32
63.50	-1.5	100.00	11.78
63.50	+4.0		

Phosphoric acid (PO_4H_3) + Ether ($C_4H_{10}O$)

Rabinovitsch and Jakubsohn, 1923

%	f.t.	%	f.t.
0.00	38.4	11.20	28.2
1.50	30.1	11.50	28.0
2.07	28.7	11.90	25.2
2.15	28.3	11.95	24.5
2.80	26.5	12.24	23.9
3.83	23.4	12.30	25.0
4.90	21.0	12.52	25.2
7.50	17.7	13.00	27.5
7.65	17.5	13.81	28.4
8.30	16.9	15.04	29.8
9.90	16.0	15.62	30.0
10.15	17.5	15.80	29.3
10.50	22.1	16.52	17.2
10.90	25.5	17.50	14.0
11.06	27.5	(6+1)	(4+1)

Plotnikov, 1905

%	$\varkappa$	%	$\varkappa$
	25°		
9.29	318.0	50.3	5.29
11.76	263.0	50.5	5.07
12.02	258.0	52.6	4.23
14.15	211.4	56.7	2.83
17.19	159.2	59.2	2.18
21.95	99.1	61.65	1.86
23.82	84.6	65.2	1.28
25.31	69.9	66.6	1.22
29.54	45.7	68.9	0.972
30.40	42.2	74.3	.561
34.50	27.5	74.5	.546
41.01	13.9	77.6	.376
43.90	10.47	84.1	.135
45.90	8.38	85.4	.112
47.40	7.28	87.3	.0736

Phosphoric acid (PO_4H_3) + Benzaldehyde (C_7H_6O)

King and Walton, 1931

%	f.t.	%	f.t.
0.0	42.3	44.5	40.7
14.0	34.2	45.1	42.6
16.2	32.0	52.0	43.0
23.5	24.9	52.6	42.2
24.0	23.7	55.3	42.0
28.7	24.0	59.2	40.2
33.8	31.4	65.0	36.3
34.6	33.6	69.3	34.1
37.5	36.0		

(1+1)

Phosphoric acid (PO_4H_3) + Anisaldehyde ($C_8H_8O_2$)

King and Walton, 1931

%	f.t.	%	f.t.
0.0	42.3	43.9	74.8
7.7	36.7	48.0	80.5
9.5	34.5	51.5	81.7
15.3	27.5	53.9	83.4
20.0	26.0	56.4	83.4
23.0	40.3	60.0	83.6
24.0	47.6	61.0	83.2
26.0	52.0	67.0	81.2
27.1	52.6	67.5	81.5
32.0	58.0	70.0	80.9
34.0	63.0	78.0	76.9
40.8	71.0	82.4	73.7

(1+1)

Phosphoric acid (PO_4H_3) + Acetophenone (C_8H_8O)

King and Walton, 1931

%	f.t.	%	f.t.
0	42.3	58.9	87.8
0.8	40.6	66.9	85.2
4.2	39.0	70.0	83.8
7.2	37.5	71.6	83.5
7.5	36.9	77.9	80.1
16.4	44.8	82.4	77.9
24.0	55.7	87.7	74.5
35.6	73.0	96.1	56.9
40.0	79.3	97.6	52.9
44.1	81.5	98.1	18.7
47.7	87.3	100.0	18.3
53.7	87.9		

(1+1)

Phosphoric acid (PO_4H_3) + Benzophenone ($C_{13}H_{10}O$)

King and Walton, 1931

%	f.t.	%	f.t.
0 ·	42.3	53.4	68.8
2.4	39.5	55.8	68.9
4.7	39.0	57.0	70.2
6.4	38.5	60.0	70.9
8.5	37.9	63.0	71.3
10.7	37.5	64.4	71.3
12.0	36.7	67.5	71.0
14.0	36.3	67.0	71.2
15.8	35.8	69.4	70.8
17.7	34.9	72.0	70.4
20.5	32.9	72.1	70.4
23.1	32.5	75.7	69.6
25.7	30.1	75.9	70.2
28.7	28.5	78.7	69.1
34.1	59.1	78.9	69.0
35.3	57.7	81.9	67.8
36.6	61.0	81.9	66.5
42.4	62.9	83.7	67.0
43.7	64.4	87.4	65.9
47.6	66.1	90.2	63.4
50.6	67.4	95.9	58.6

(1+1)

%	f.t. II	%	f.t. II
81.9	43.8	98.3	47.2
85.8	48.4	98.7	47.8
93.2	46.9	100.0	48.0

Phosphoric acid (PO_4H_3) + Coumarin ($C_9H_6O_2$)

King and Walton, 1931

%	f.t.	%	f.t.
1.2	39.8	53.5	111.8
3.7	37.1	59.9	113.4
6.2	35.0	60.5	112.5
7.0	33.7	66.9	111.6
9.3	32.3	69.4	109.0
11.2	30.9	71.9	108.1
12.9	29.3	73.9	107.1
15.6	26.6	77.2	105.0
17.8	27.7	85.6	99.7
20.0	40.8	88.2	97.7
21.6	54.8	90.8	93.8
22.8	63.7	95.3	86.0
31.2	84.6	97.6	73.3
37.2	95.9	98.3	67.9
43.5	104.9	99.0	68.1
49.5	109.7	100.0	68.8

(1+1)

Phosphoric acid (PO_4H_3) + Camphor ($C_{10}H_{16}O$)

Zhukov and Kasatkin, 1909

mol%	f.t.	mol%	f.t.
67.1	37.0	48.1	28.3
61.2	30.6	46.1	26.8
54.5	26.6	44.6	26.0
51.9	27.1	41.5	28.1
51.0	28.4	39.2	31.0
50.0	29.2		

(1+1)

Phosphoric acid (PO_4H_3) + Phenol (C_6H_6O)

King and Walton, 1931

%	f.t.	%	f.t.
6.6	67.5	44.3	70.3
18.9	70.2	55.0	69.9
26.9	70.3	63.5	69.4
36.5	70.3		

(1+1)

Phosphoric acid (PO_4H_3) + Guaiacol ($C_7H_8O_2$)

King and Walton, 1931

%	f.t.	%	f.t.
0.0	42.3	65.4	20.9
18.9	37.0	74.6	24.5
26.2	34.3	84.2	26.5
32.0	31.3	91.0	26.9
41.3	24.1	96.0	27.3
48.5	15.5	100.0	27.5
55.1	12.0		

Phosphoric acid (PO_4H_3) + Acetic acid ($C_2H_4O_2$)

King and Walton, 1931

%	f.t.	%	f.t.	
0.0	42.3	32.5	32.7	
9.2	27.0	35.6	32.7	
14.1	14.8	36.4	33.8	(1+1)
15.1	14.0	42.6	31.6	
20.0	18.9	43.3	32.7	
22.6	21.7	49.0	30.3	
25.2	25.6	57.4	23.0	
26.9	27.9	62.0	14.5	
27.5	29.6			

Phosphoric acid (PO_4H_3) + Propionic acid ($C_3H_6O_2$)

King and Walton, 1931

%	f.t.	%	f.t.
0.0	42.3	21.9	12.7
9.4	33.2	25.4	6.2
15.5	26.3	27.0	2.0
17.6	20.3	29.6	-2.0

Phosphoric acid (PO_4H_3) + Butyric acid ($C_4H_8O_2$)

King and Walton, 1931

%	f.t.
0.0	42.3
12.3	34.2
22.2	25.8
30.0	16.5

Phosphoric acid (PO_4H_3) + Caproic acid ($C_6H_{12}O_2$)

King and Walton, 1931

%	f.t.	%	f.t.
6.2	40.9	33.6	32.8
11.4	39.9	38.5	30.4
20.0	38.2	43.3	23.0
27.5	35.8	46.1	24.0

Phosphoric acid (PO_4H_3) + Pyruvic acid ($C_3H_4O_3$)

King and Walton, 1931

%	f.t.	%	f.t.
0.0	42.3	38.3	34.4
12.4	28.0	45.7	36.4
17.1	21.5	47.1	35.8
22.9	16.6	54.3	35.2
29.6	24.0	61.1	33.7
30.9	26.4	70.0	30.6
37.3	33.6	75.7	26.5

(1+1)

Phosphoric acid (PO_4H_3) + Benzoic acid ($C_7H_6O_2$)

King and Walton, 1931

%	f.t.	%	f.t.
0.9	44.0	12.8	113.8
1.9	73.0	15.1	115.5
2.9	84.0	17.4	115.8
3.7	92.7	79.5	116.4
4.6	98.0	82.8	116.5
5.7	101.3	84.6	116.9
7.4	106.0	94.0	119.0
10.0	112.0	100.0	122.3

Phosphoric acid (PO_4H_3) + Phenylacetic acid ($C_8H_8O_2$)

King and Walton, 1931

%	f.t.	%	f.t.
13.0	45.1	55.3	64.2
21.0	50.7	72.2	68.3
31.9	56.2	82.7	70.2
35.1	58.1	81.4	72.0
40.0	60.0	100.0	76.7
47.0	62.0		

Phosphoric acid (PO_4H_3) + Monochloracetic acid ($C_2H_3O_2Cl$)

King and Walton, 1931

%	f.t.	%	f.t.
0.0	42.3	46.0	46.6
4.0	38.8	48.4	47.4
13.5	32.1	53.6	49.7
23.1	26.6	56.6	50.8
34.0	38.4	56.8	50.6
38.5	41.1	64.7	52.2
40.0	43.4	68.4	54.2
41.8	44.3	74.0	55.0

Sulfuric acid (H_2SO_4) + Carbon dioxide (CO_2)

Francis, 1954

%		t
L_1	L_2	
6	99.9	25

Sulfuric acid (H_2SO_4) + Ether ($C_4H_{10}O$)

Porter, 1915 and 1919

mol%	p/p ether	mol%	p/p ether
0 - 40	0	80	0.79
50	0.05	90	0.91
60	0.37	100	1.00
70	0.62		

Campbell, 1915

%	p	%	p
	30°		
0	0	68.76	455.1
41.59	34.8	76.90	554.4
54.51	192.2	97.13	631.8
56.35	229.7	100.00	642.1

Kurnakov and Voskresenskaya, 1936

mol%	Dv(cc/mole)	mol%	Dv(cc/mole)
		20°	
14.3	5.6	57.0	7.0
20.0	7.6	66.0	6.0
43.5	8.0	81.7	3.0
48.2	7.7	84.3	3.1
53.1	7.6	94.5	1.4

Campbell, 1915

%	d	%	d
	30°		
0	1.8240	64.12	0.9814
1.37	.7951	67.12	.9537
5.02	.7295	73.30	.8980
17.47	.5263	81.87	.8275
35.42	.2939	84.65	.8060
44.77	.1809	89.00	.7745
48.01	.14585	96.375	.7247
53.98	.08165	100	.7019
56.16	.0593		

Sabinina, 1933

%	d 0°	10°	20°	30°
0.00	1.8530	1.8470	1.8361	1.8276
3.90	.8033	-	-	-
5.50	.7846	.7752	.7653	.7564
7.58	.7546	-	-	-
15.74	.6365	.6267	.6190	.6101
16.47	.6220	-	-	-
18.30	.5938	.5782	.5703	.5623
25.75	.5005	.4948	.4645	.4720
33.75	.4115	.4017	.3945	.3863
34.19	.4885	-	-	-
38.67	.3597	-	-	-
39.80	.3472	-	-	-
41.79	.3235	-	-	-
43.01	-	.2967	.2886	.2800
46.87	.2659	.2576	.2497	.2420
51.75	-	.2010	.1944	.1863
78.22	-	0.9375	0.9300	0.9920
85.70	0.8730	.8630	.8520	.8420
100.00	0.7332	.4248	.7135	.7019

mol%	η 0°	10°	20°	30°
0.00	-	43370	30530	20410
3.90	45340	-	-	-
5.50	-	29990	21690	15400
7.58	38170	-	-	-
10.74	27870	22340	16950	12870
16.47	28050	-	-	-
18.30	-	22320	17410	13020
25.75	30530	25310	19090	15400
33.95	-	24950	21040	15790
34.19	34950	-	-	-
36.87	37500	29190	22850	16720
38.67	35810	-	-	-
39.80	35750	-	-	-
41.79	35200	-	-	-
43.01	-	28160	20230	16220
46.87	31300	26370	19660	14570
51.75	-	19600	15260	11480
56.55	15730	13240	10400	8940
78.21	2620	2340	2030	1670
85.70	680	610	550	510

Bailey, 1936

mol%	σ 17°	mol%	σ 17°	9.5°
0	50.33	60	32.50	-
0.5	49.40	80	23.30	-
1.0	48.75	90	19.55	-
1.5	48.24	93	18.50	-
2.0	47.83	95	17.97	18.63
3.0	47.22	96	17.60	18.31
4.0	46.93	97	17.30	17.99
5.0	46.86	98	17.06	17.67
10.0	46.83	98.5	16.90	17.53
20.0	46.80	99.0	16.80	17.51
25.0	46.30	99.5	16.80	17.78
40.0	41.60	100.0	17.06	18.13

Usanovich, 1934

%	mol%	κ 0°	25°
100	100	0	0
72.56	77.78	1.8	2.7
65.58	71.60	3.3	5.4
58.55	65.17	5.1	8.3
52.58	59.49	10	17
47.61	54.63	23	38
38.77	45.60	75	131
37.01	43.76	87	147
31.88	38.27	137	-
29.95	36.15	140	-
23.35	28.74	250	-
22.83	28.15	265	398
21.23	26.40	276	-
17.19	21.47	376	650
12.22	15.57	458	765
11.39	14.57	480	-
7.61	9.86	443	886
7.15	9.24	469	831
3.47	4.54	367	-
0.00	0.00	50	117

Kurnakov and Voskresenskaya, 1936

mol%	Q mix.	U	mol%	Q mix.	U
		20°			
0	-	0.540	60.8	3592	0.383
10	872	.513	64.5	3511	.373
20	1758	.485	70	3412	.370
30	2409	.460	80	2301	.360
40	3060	.436	90	1170	.348
50	3441	.406	100	-	.332
55	3524	.398			

Sulfuric acid (H_2SO_4) + Dioxane ($C_4H_8O_2$)

Mezhennii, 1956 (fig.)

mol%	f.t.	mol%	f.t.	
0	10.7	43	92	
8	8	50	101	(1+1)
14	5 E	54	80	
20	20	59	70	
25	52	64	40	
35	70	70	23	
39	83			

N	λ	t
36.20	3.74	60
36.20	1.422	25
28.02	0.796	25
2.48	0.0238	20

Sulfuric acid (H_2SO_4) + Acetophenone (C_8H_8O)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	18.2	68.9	28.7
95.8	17.2	68.6	29.9
95.2	17.4	63.0	28.0
89.0	13.9	59.9	25.0
86.3	17.6	54.9	22.5
80.8	23.8	51.1	18.5
69.0	28.4	0.0	10.3

(1+2)

Sulfuric acid (H_2SO_4) + Benzophenone ($C_{13}H_{10}O$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	47.8	46.2	63.9
96.4	46.4	42.6	61.9
92.9	44.5	38.8	59.4
88.7	42.1	35.7	55.2
79.8	38.0	32.6	48.7
70.9	26.5	29.6	39.1
64.5	56.6	0.0	10.3
54.1	63.0		

(1+1)

Sulfuric acid (H_2SO_4) + Coumarin ($C_9H_6O_2$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	68.4	54.2	32.7
89.2	62.3	50.5	35.5
80.7	53.4	46.2	34.5
73.1	51.8	42.6	32.3
68.3	46.5	38.4	24.0
63.5	40.4	35.2	14.0
58.4	30.8	0.0	10.3

(1+1)

Sulfuric acid (H_2SO_4) + Dimethylpyrone($C_6H_8O_2$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	132.0	46.2	90.9
85.4	124.0	43.3	72.5
76.1	115.0	41.8	56.0
71.5	109.0	40.5	41.6
66.9	103.6	40.1	36.6
63.5	101.8	39.5	44.3
61.1	100.2	38.3	43.1
57.3	90.4	36.1	37.6
55.5	84.2	34.1	29.3
53.0	88.1	32.2	28.2
51.3	93.4	30.4	6.0
50.6	96.0	0	10.3
47.1	93.4		

(1+2) (1+1) (3+2)

Sulfuric acid (H_2SO_4) + Acetic anhydride ($C_4H_6O_3$)

Atsuki and Ishii, 1931

%	d	η(relative)	σ	κ
100	1.075	0.0075	30.6	-
98.5	-	-	-	1.932
96.9	-	-	-	0.655
89.6	-	-	-	20.27
85.5	1.177	0.0217	29.5	18.70
74.5	-	-	-	35.49
65.9	1.296	0.306	41.3	290.0
59.0	-	-	-	119.1
43.8	-	-	-	15.34
36.5	-	-	-	20.00
22.6	1.665	0.740	59.6	129.5
18.5	-	-	-	223.8
14.6	1.721	0.276	60.25	423.8
10.4	-	-	-	663.4
5.5	1.786	0.119	58.5	766.0
0.0	1.867	0.126	55.2	-

Sulfuric acid (H_2SO_4) + Benzoic anhydride ($C_{14}H_{10}O_3$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	39.5	49.7	70.2
94.8	38.9	43.7	67.6
90.2	42.3	37.8	59.1
85.7	45.3	37.4	58.3
81.0	49.2	36.1	58.7
77.2	50.0	34.5	58.7
73.5	51.0	26.5	55.4
67.6	57.3	15.8	25.0
62.2	64.3	0.0	10.3
55.4	69.4		

(1+2) (1+1) (2+1)

Sulfuric acid (H_2SO_4) + Methyl sulfate($C_2H_6O_4S$)

Drucker and Kassel, 1911

%	d	η	%	d	η
	76.5°			0°	
0.00	1.7791	5291	0.00	1.8546	48426
24.98	.6146	4098	24.98	.6955	31299
50.15	.4882	2806	50.15	.5732	18261
75.02	.3593	1492	75.02	.4483	6999
100.00	.2576	802	100.00	.3516	2732

Sulfuric acid (H_2SO_4) + Nitrobenzene ($C_6H_5NO_2$)

Masson, 1931

mol%	f.t.	mol%	f.t.
99.7	5.35	40	10.0
90	2.4	30	5.1
82	0.7	20	-5.0
80	2.0	17	-7.3
70	7.2	10	+2.0
60	10.0	0.85	10.2
50	11.6		

(1+1)

Usanovich, Kozmina and Tartakovskaya, 1935

mol%	d	mol%	d
	at room t.		
0.00	1.86	46.57	1.48
0.35	1.86	55.84	1.44
6.06	1.76	72.24	1.36
16.79	1.66	81.40	1.31
32.16	1.56	91.19	1.27
40.19	1.51	94.01	1.25
42.47	1.49		

%	η 0°	10°	18°	30°
0.00	64000	-	30000	20010
1.64	63040	40680	20850	19920
3.69	-	-	31090	19680
5.86	62400	39500	28670	18560
6.18	60420	39480	28930	18960
9.86	59940	38700	27000	-
15.08	58950	37750	24490	18310
24.35	51600	33150	24260	16170
35.29	43930	27830	20400	13560
37.22	45730	28150	20300	12960
39.68	39210	25290	18670	12280
49.42	28610	18710	13870	9380
65.07	17020	10370	8010	5750
79.07	7720	5690	4610	3500
100.00	3110	2450	-	1700

%	κ 0°	10°	18°	30°
0.00	35.7	56.0	77.6	117.5
0.35	40.5	62.5	85.4	128.8
16.79	61.8	86.9	112.0	149.7
32.16	32.7	46.4	59.5	-
34.59	-	-	52.0	71.7
40.19	18.5	-	-	46.5
42.47	17.1	24.5	31.7	43.9
47.57	12.0	17.1	-	-
55.84	5.67	7.59	9.38	13.5
66.03	2.50	-	8.00	-
72.24	1.35	2.07	2.78	3.82
79.15	2.30	-	4.60	-
81.40	2.78	3.57	4.10	5.65
91.19	2.77	3.48	4.07	5.97
94.06	1.12	2.62	3.01	3.64

Bailey, 1936

mol%	σ	mol%	σ
		17°	
0.0	50.33	60	46.08
0.5	50.05	80	44.80
1.0	49.83	90	43.98
1.5	49.66	93	43.64
2.0	49.54	95	43.10
3.0	49.25	96	42.80
4.0	49.00	97	42.73
5.0	48.80	98	42.85
10	48.25	98.5	42.98
20	47.76	99	43.11
25	47.52	99.5	43.27
40	46.87	100	43.47

Sulfuric acid (H_2SO_4) + p-Nitrobenzaldehyde ($C_7H_5NO_3$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	104.4	44.6	70.4
90.6	100.7	43.9	70.4
79.7	94.8	41.1	67.1
73.2	90.9	40.2	66.7
65.0	85.0	34.5	54.0
55.4	76.6	33.7	56.5
49.7	74.5	24.1	32.6
49.5	74.8	0.0	10.3
47.3	73.0		

Sulfuric acid (H_2SO_4) + Methyl malate 1 ($C_6H_{10}O_5$)

Grossmann and Landau, 1910

c	(α) red	yellow	green	pale blue	dark blue	viol.
	20°					
50.089	-12.28	-15.27	-18.07	-22.16	-23.66	-25.45
25.0445	-17.77	-22.20	-26.71	-31.74	-34.70	-
12.4223	-21.24	-26.35	-31.54	-37.97	-41.21	-
4.8110	-23.07	-30.14	-34.09	-41.57	-45.52	-49.89
2.4055	-22.86	-29.52	-33.67	-41.16	-44.90	-

Sulfuric acid (H_2SO_4) + Ethyl tartrate($C_8H_{14}O_6$)

Grossmann and Landau, 1910

c	(α) red	yellow	green	pale blue	dark blue	viol.
	20°					
49.928	+22.33	+28.04	+32.15	+37.55	+40.46	+44.06
24.964	32.05	37.05	43.66	54.08	61.49	-
12.482	33.17	39.10	47.99	57.36	63.69	-
5.038	47.84	60.74	72.85	86.94	96.67	+108.57
2.519	+49.62	+62.33	+75.03	+89.32	+98.85	-

Sulfuric acid (H_2SO_4) + Phenol (C_6H_6O)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	42.4	51.8	+10.4
94.1	35.5	49.5	8.0
86.6	30.5	45.7	6.0
79.4	23.4	42.7	2.5
72.0	13.4	39.5	-2.0
66.8	15.0	36.3	-7.0
61.3	16.0	34.1	-10.0
55.4	12.2	0.0	+10.0
(1+2)			

Sulfuric acid (H_2SO_4) + o-Cresol (C_7H_8O)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	30.4	66.2	6.2
89.1	26.2	61.9	1.0
76.8	18.8	0.0	10.3
68.7	9.6		

Sulfuric acid (H_2SO_4) + p-Cresol (C_7H_8O)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	34.6	56.0	24.0
90.4	29.4	48.7	57.3
82.2	22.1	39.5	84.1
75.4	11.6	34.7	91.9
68.0	11.0	33.8	93.4
62.6	11.0	28.6	90.9
58.5	9.3	21.6	78.2
54.1	7.5	16.2	57.8
50.5	5.0	12.5	40.2
45.4	9.0	0.0	10.3
(1+2)		(2+1)	

Sulfuric acid (H_2SO_4) + o-Xylenol ($C_8H_{10}O$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	63.7	50.7	53.8
87.5	57.6	47.8	60.8
80.2	50.3	44.6	71.5
75.8	47.0	41.5	80.7
72.1	42.4	34.0	90.0
63.7	31.6	30.4	89.4
70.9	68.0	25.3	84.8
66.9	70.0	20.3	72.8
60.2	68.9	16.1	58.3
54.4	63.4	0.0	10.3
(1+2)		(2+1)	

Sulfuric acid (H_2SO_4) + p-Xylenol ($C_8H_{10}O$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	74.0	54.0	90.4
91.1	71.0	46.4	92.4
81.1	67.9	40.1	101.0
71.7	80.6	32.8	104.0
67.0	84.2	24.7	91.9
61.7	87.2	0.0	10.3

(1+1) (2+1)

Sulfuric acid (H_2SO_4) + Thymol ($C_{10}H_{14}O$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	49.6	72.2	42 L_1+L_2
92.4	47.1	64.7	42 L_1+L_2
83.3	43.0	0.0	10.3

Sulfuric acid (H_2SO_4) + o-Nitrophenol ($C_6H_5NO_3$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	45.0	63.8	38.7
93.6	43.9	59.3	39.3
88.0	42.4	52.6	37.0
82.3	41.5	45.6	33.5
75.7	40.7	40.7	30.0
74.4	41.4	32.0	21.0
68.9	39.5	25.8	11.0
67.9	40.6	0.0	10.3
66.5	39.1		

Sulfuric acid (H_2SO_4) + m-Nitrophenol ($C_6H_5NO_3$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	95.4	55.2	73.5
93.3	92.5	51.4	69.4
87.7	89.4	45.9	62.3
82.0	84.7	37.7	52.2
73.5	81.7	31.7	39.4
68.5	82.7	24.7	18.0
60.5	78.6	0.0	10.3

(1+2)

Sulfuric acid (H_2SO_4) + p-Nitrophenol ($C_6H_5NO_3$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	113.8	58.4	80.7
92.7	109.4	53.0	73.5
83.9	102.7	50.6	70.4
76.9	97.0	44.7	60.3
68.1	89.9	35.6	35.1
64.1	88.3	0.0	10.3

(1+2)

Sulfuric acid (H_2SO_4) + Acetic acid ($C_2H_4O_2$)

Pickering, 1893

%	D f.t.	%	D f.t.
0.921	-1.87	4.705	-11.27
1.769	3.80	6.516	16.18
2.769	6.27	8.986	-25.44
3.638	-8.16		

%	f.t.	%	f.t.
97.319	+15.74	77.358	+7.59
94.933	15.10	72.077	+2.13
92.220	14.37	67.394	-4.77
89.935	13.88	63.077	-17.97
87.233	13.10	59.216	-28
82.876	+11.09		

Jones, 1894

%	D f.t.($C_2H_4O_2$)	%	D f.t.($C_2H_4O_2$)
99.449	-0.245	90.021	-2.505
98.231	0.630	87.97	3.075
96.461	1.015	85.94	3.700
94.370	1.521	84.16	4.385
92.116	-2.005	82.31	-5.065

Drucker and Kassel, 1911

%	d 76.5°	d 15°	%	d 76.5°	d 15°
0.00	1.7791	1.8405	70.07	1.2025	1.2708
9.93	.6986	.7582	90.01	1.0547	1.1243
29.88	.5690	.5920	100.00	0.9853	1.0550
50.18	.3565	.4222			

Usanovich and Naumova, 1935

mol%	d 0°	d 10°	d 20°	d 30°
0.00	1.8513	1.8409	1.8305	1.8205
24.01	.7340	.7240	.7170	.7070
30.03	.6985	.6886	.6800	.6720
50.06	.5555	.5450	.5367	.5275
66.57	.4090	.3980	.3880	.3770
74.96	.3370	.3250	.3104	.3056
100.00	.0697	.0593	.0491	.0392

Briner, Hoekstra and Susz, 1935

mol%	d	mol%	d
	25°		
100.00	1.045	45.3	1.560
82.2	.239	36.8	.618
71.4	.343	29.7	.666
63.2	.415	15.3	.754
51.2	.512	0.0	.840
49.4	.530		

Briner, Hoekstra and Susz, 1935

mol%	% Dv	mol%	% Dv
	25°		
100.00	0.00	45.3	7.0
82.2	4.70	41.9	6.9
71.4	6.52	36.8	6.6
63.2	6.93	29.7	5.5
59.8	7.00	15.3	3.84
51.2	7.05	0.0	0.0
49.4	7.06		

Drucker and Kassel, 1911

%	η 76.5°	η 15°
0.00	5033	26939
9.93	7174	41947
29.88	10718	137174
50.18	9434	114679
70.07	3891	31348
90.01	1256	3817
100.00	564	1333

Usanovich and Naumova, 1935

mol%	η	mol%	η
	15°		
71.22	40000	44.59	139000
73.21	54000	32.15	97000
67.72	78000	30.06	83000
65.97	89000	18.03	45500
62.31	119000	9.60	35500
58.44	132000	5.84	32000
48.33	139500		

Briner, Hoekstra and Susz, 1935

mol%	η	mol%	η
	25°		
100.00	1200	45.3	560000
82.2	60700	36.8	448000
71.4	187400	29.7	310200
63.2	364000	15.3	154000
51.2	543500	0.0	106000
49.4	557500		

Hall and Voge, 1933

mol%	κ	mol%	κ
	25°		
100	0.265	62.8	111.3
98.768	0.265	59.6	113.9
95.845	8.561	47.7	154.0
94.800	15.31	36.1	294.5
88.67	66.58	26.3	539.4
82.5	100.9	16.5	745.0
74.2	112.8	7.1	711.6
72.3	112.6	4.0	545.2
69.3	111.6	1.0	257.3
67.5	111.1	0.0	100.0

Briner, Hoekstra and Susz, 1935

mol%	κ	mol%	κ
	25°		
100.00	0.0026	59.8	102.5
93.1	36.2	55.8	103.5
81.0	106.2	48.8	111.8
75.7	113.1	41.9	137.3
73.2	113.5	36.8	176.3
71.4	112.5	0.0	332.0
63.2	104.65		

Usanovich and Naumova, 1935

mol%	κ 0°	10°	20°	30°
76.22	46.1	67.9	107.6	156.7
73.21	37.1	68.2	106.1	160.8
67.72	35.1	63.5	106.0	161.5
65.97	34.2	63.4	105.7	164.4
62.31	32.7	60.4	101.4	156.5
58.44	33.7	62.2	104.8	162.4
48.33	47.2	84.0	136.8	205.7
44.59	65.2	111.4	176.5	254.2
32.15	185.1	259.0	365.6	511.5
30.06	207.1	301.4	420.8	562.8
26.52	280.7	-	-	-
18.03	396.3	553.6	733.0	933.9
16.46	-	-	819.1	-
9.60	479.3	642.3	896.9	1517.0
5.84	406.5	579.4	784.8	948.6

15°

mol%	κ	mol%	κ
71.22	87.76	44.59	143.95
73.21	87.19	32.15	312.32
67.72	84.77	30.06	364.1
65.97	84.53	18.03	643.3
62.31	80.92	9.60	769.6
58.44	83.505	5.84	682.1
48.33	110.01		

Jones, 1894

0°

$M(SO_4H_2)$	λ
0	0.000005
0.12	0.049
0.37	0.232
0.89	0.780
1.67	1.253
2.70	1.157
3.70	0.995
4.35	0.986

Sulfuric acid (H_2SO_4) + Glutaric acid ($C_5H_8O_4$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	93.5	49.0	37.1
87.4	92.9	47.8	35.0
78.8	88.6	45.5	49.7 (1+1)
70.9	82.5	41.6	47.7
65.2	75.7	39.0	46.0
59.6	63.9	33.5	40.1
54.1	51.7	0.0	10.3

Sulfuric acid (H_2SO_4) + Crotonic acid ($C_4H_6O_2$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	71.0	59.3	22.3
93.8	67.5	54.9	21.3
83.5	61.9	49.7	24.3
74.6	54.7	43.5	23.3
69.1	47.0	38.1	15.8
65.9	40.4	33.7	1.5

(1+1)

Sulfuric acid (H_2SO_4) + Benzoic acid ($C_7H_6O_2$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	121.8	34.2	77.2
98.0	120.6	30.8	72.3
92.1	115.8	26.2	61.4
83.9	109.6	24.2	53.2
69.1	92.5	22.6	44.6
67.4	90.0	18.6	25.8
60.2	82.3	9.9	-6.2
56.9	84.2	8.0	-1.2
51.8	86.2	5.7	+3.2
49.5	87.3	3.2	+7.0
44.3	86.3	0.0	+10.3
39.2	83.2		

(1+1)

Sulfuric acid (H_2SO_4) + α-Toluic acid ($C_8H_8O_2$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	76.8	45.1	61.2
91.1	71.1	42.6	60.7
83.8	67.7	39.5	60.0
71.6	59.4	37.9	58.7
69.9	56.8	36.2	55.0
68.7	55.0	28.7	47.7
67.1	53.2	16.3	15.8
65.3	50.1	6.8	-9.0
61.6	40.6	5.1	-3.0
56.3	58.4	2.5	5.6
53.7	60.0	0.0	10.3
49.8	61.7		
	(1+1)		

Sulfuric acid (H_2SO_4) + o-Toluic acid ($C_8H_8O_2$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	102.9	44.3	57.6
88.7	97.8	39.5	56.3
78.0	92.0	37.0	54.6
68.1	83.6	33.6	49.1
66.7	82.2	30.7	45.6
61.1	74.2	25.6	33.5
58.1	67.0	20.1	12.0
51.9	58.7	4.6	3.0
51.6	58.7	2.4	7.2
47.4	58.2	0.0	10.3

Sulfuric acid (H_2SO_4) + m-Toluic acid ($C_8H_8O_2$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100.0	110.0	47.1	68.8
84.5	100.5	45.0	62.3
74.3	92.0	36.3	56.2
67.7	83.6	42.5	61.8 (1+1)
64.1	78.7	39.7	58.4
61.8	74.9	36.4	55.6
64.7	79.3 (1+2)	34.8	54.0
61.8	78.9	34.0	52.7
60.2	78.3	30.8	46.5
59.5	78.3	27.1	37.5
58.7	78.0	22.4	20.8
55.6	76.2	7.7	-1.8
54.1	75.9	2.4	+7.3
50.9	72.2	0.0	+10.3
49.9	71.6		

Sulfuric acid (H_2SO_4) + p-Toluic acid ($C_8H_8O_2$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	180.2	37.1	94.9
84.2	167.5	32.8	88.5
71.0	154.7	28.1	77.5
62.9	143.7	23.0	58.7
59.6	137.5	21.0	53.0
55.2	127.0	16.8	18.0
51.3	116.0	14.7	7.5
49.6	111.2	6.2	-2.2
46.8	100.2	3.2	+3.0
45.5	99.5	1.7	+5.8
42.2	98.9	0.0	+10.3
		(1+1)	

Sulfuric acid (H_2SO_4) + Monochloracetic acid ($C_2H_3O_2Cl$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	61.7	62.3	38.1
94.4	60.5	59.7	34.5
88.1	57.8	53.7	25.2
78.9	52.7	46.0	9.2
65.1	41.1		

Pushin and Stanojevic, 1940-46

mol %	f.t.	E
0	+10.4	-
5	+ 4	-
10	- 3	-36
20	-18	-36
40	- 3	-
50	+19	-36
60	+36	-35
70	+46	-36
80	+53	-
90	+59.5	-
100	+62.6	-

50°

mol %	d	η	mol %	d	η
0	1.8039	9220	50	1.6091	9870
10	.7796	9370	60	.5633	9420
20	.7374	9630	66.6	.5330	8760
30	.6956	9990	70	.5167	8070
33.3	.6815	10020	80	.4752	6050
37	.6659	10080	90	.4215	4170
40	.6536	10100	100	.3800	2150
43	.6393	10050			

Sulfuric acid (H_2SO_4) + Dichloracetic acid ($C_2H_2O_2Cl_2$)

Pushin and Stanojevic, 1940 - 1946

mol %	f.t.	E	mol %	f.t.	E
0	+10.4	-	65	-10	-26
12	+ 2	-26	75	- 3	-25
25	- 8	-25.5	85	+ 3	-
45	-25	-25	100	+12	-
63	-12	-25			

mol %	d	η	mol %	d	η
		25°			
0	1.8277	22790	39.5	1.7152	24210
18.5	.7649	24380	51.2	.6864	22860
25	.7540	24910	78.8	.6065	13360
28.5	.7450	25150	100	.5508	5890
33.1	.7311	24880			

mol%	d	η	mol%	d	η
		50°			
0	1.8039	9220	50	1.6799	12370
10	.7766	10840	60	.6524	11230
20	.7517	12230	70	.6304	9500
25	.7409	12660	80	.6058	7220
30	.7261	13060	90	.5810	5180
32.9	.7189	13040	100	.5550	3200
40	.7005	13020			

Usanovich and Tartakoskaya, 1946

mol%	η	mol%	η
	60°		
0.00	10500	54.58	5400
1.52	10100	70.56	4700
14.54	8600	79.66	4200
23.85	6500	97.41	4100
47.50	5700	100.00	3800

mol%	κ		
	20°	40°	60°
0.00	90	200	330
0.61	76	147	248
4.25	-	-	200
12.20	54	101	166
21.58	32	59.5	98.6
28.17	16.9	33.8	57.7
35.71	-	23.0	38.0
57.71	-	5.818	8.58
62.39	-	0.500	8.04
77.82	-	-	1.71
90.83	-	-	0.85
99.22	-	-	0.013

Sulfuric acid (H_2SO_4) + Trichloracetic acid ($C_2H_3O_2Cl_3$)

Kendall and Carpenter, 1914

mol%	f.t. I	mol%	f.t. II
100.0	57.3	43.9	38.4
89.3	56.1	32.9	33.8
78.1	53.4	21.9	24.0
68.2	51.2	17.8	20.2
58.3	49.2	13.4	13.4
54.0	47.9	7.8	1.0
49.5	47.0	2.9	7.5
41.7	44.8	0.0	10.3
37.7	42.6		
33.2	41.9		
30.8	39.2		
26.1	36.5		
24.9	35.3		
21.0	31.7		
17.9	29.0		
14.1	21.6		
11.3	15.5		

Pushin and Stanojevic , 1940-46

mol%	f.t.		E
	I	II	
0	10.4	-	-
3.5	7	-	-
5	6	-	-
8	3.5	-	3.5
12	23	12	-
15	26	17	-
20	31	23	-
30	39	32	-
35	42	35	-
40	45.5	37.5	-
50	49.5	41	3.0
60	52	43.5	2.5
70	54	47	2.2
85.5	56	48.5	1.0
90	56.8	49	-
100	57.4	49.6	-

Sulfuric acid (H_2SO_4) + Chlorocrotonic acid ($C_4H_5O_2Cl$)

Kendall and Carpenter, 1914

mol%	f.t.	mol%	f.t.
100	99.0	52.8	58.5
90.4	93.5	48.1	49.5
80.2	86.5	43.9	41.0
69.4	79.5	39.0	30.0
63.5	73.2	31.0	2.0
56.6	64.0		

Pyrosulfuric acid ($H_2S_2O_7$) + Dioxane ($C_4H_8O_2$)

Mezhennii, 1956

mol%	t	κ
32.15	70	133.5
50.03	70	65.6
67.50	77	9.94
72.99	85	2.29
76.42	74	1.68
89.6	70	1.54
89.6	34	0.294
89.6	30.1	.320
89.6	28	.328
89.6	26	.337
89.6	43	.3461
91.8	20.3	.4423
93.8	20.3	.0129
95.01	20.3	.0050
95.6	20.3	.00025
96.6	20.3	.00068

mol%	κ				
	40°	44°	50°	52°	65°
0	84.0	-	112.5	-	-
5.18	99.0	-	200.1	-	-
25.11	83.4	-	143.5	-	-
55.01	-	-	-	-	10.99
69.49	-	0.282	-	0.84	-
73.99	0.68	-	1.07	-	-
79.51	0.51	-	0.68	-	-
85.02	0.167	-	5.95	-	-
91.90	-	-	5.45	-	-

Ammonium bromide (NH_4Br) + Dimethyl formamide (C_3H_7NO)

Dawson, Leader and Zimmerman, 1951 (fig.)

m (NH_4Br)	κ				
	20°	0°	-20°	-40°	-50°
0.22	43.0	34.0	24.4	16.7	12.1
.50	65.9	50.7	36.3	21.5	16.9
.65	71.5	55.2	41.2	23.4	18.2
.75	79.8	59.9	42.5	24.7	18.3
.90	86.8	64.5	43.5	24.7	17.7
1.10	92.5	68.6	44.3	23.2	15.8
1.33	96.8	71.4	45.3	22.8	15.4
1.65	-	74.7	44.8	21.7	12.7

Ammonium bromide (NH_4Br) + Methyl alcohol (CH_4O)

Bedwell, 1943

%	f.t.	%	f.t.
90.39	0	87.67	40
89.65	10	87.05	50
89.02	20	86.49	60
88.43	30		

Ammonium iodide (NH_4I) + Ethyl alcohol (C_2H_6O)

Perkin, 1889

%	d	
	15°	10°
100	0.7940	-
78.90	0.9413	0.9458

%	t	(α)magn.
100	16.8	0.8637
78.90	15.8	1.2836

Gladstone and Hibbert, 1897

%	molar refraction
82.9	41.98
85.06	41.22

Ammonium iodide (NH_4I) + Glycerol ($C_3H_8O_3$)

Davis and Jones, 1912 - 13

M (NH_4I)	molar conductivity 25°	35°	45°	55°	65°	75°
1.0	0.389	0.770	1.385	2.304	3.602	5.260
0.77	.371	.746	.361	.268	.540	.189
0.50	.348	.717	.312	.140	.404	.272
0.25	.326	.665	.224	.069	.266	4.858
0.10	.342	.700	.321	.210	.506	5.278
0.02	.359	.740	.373	.331	.707	.534
0.01	.369	.764	.414	.424	.843	.772
0.005	.365	.760	.396	.386	.805	.606
0.0025	.371	.753	.401	.410	.819	.749
0.0012	.404	.777	.441	.485	4.010	7.950
0.0006	.413	.811	.457	.528	4.130	8.110

M (NH_4I)	η (water^t=1) 25°	35°	45°	55°	65°	75°
1.00	4.399	2.063	1.071	0.5927	0.3623	0.2264
0.75	4.769	.219	.139	.6215	.3772	.2344
0.50	5.119	.355	.205	.6540	.3850	.2424
0.25	5.418	.511	.255	.6807	.3963	.2516
0.10	5.766	.623	.325	.7060	.4028	.2579
0.00	5.826	.648	.332	.7100	.4076	.2558

Ammonium nitrate ($H_4N_2O_3$) + m-Phenylenediamine ($C_6H_8N_2$)

Khaishbashev, 1945

%	f.t.	E	tr.t. I	tr.t. II	tr.t. III
0	165.5	-	125.0	84.0	32.0
5	152.5	-	123.0	76.0	30.0
10	146.0	-	123.0	78.0	28.5
15	145.0	-	120.0	65.0	30.0
20	144.0	37.0	121.5	66.0	27.0
25	145.8	38.5	119.0	72.0	29.0
30	145.0	36.0	117.0	66.0	25.5
35	145.0	38.0	118.5	80.0	28.0
40	146.0	37.0	116.5	71.0	26.0
45	145.0	39.0	116.5	76.0	30.0
50	144.2	39.0	117.0	61.2	29.0
55	145.0	39.0	118.0	60.0	28.0
60	141.5	40.0	115.0	60.0	28.0
65	125.2	40.0	-	59.0	25.0
70	102.4	39.0	-	60.0	26.0
75	80.0	39.0	-	59.0	26.0
80	60.5	40.0	-	-	26.0
85	40.0	-	-	-	25.0
90	47.8	39.0	-	-	-
95	55.5	39.0	-	-	-
100	63.2	-	-	-	-

(3+1)

Ammonium nitrate ($H_4N_2O_3$) + p-Phenylenediamine ($C_{12}H_8N_2$)

Khaishbashev, 1945

%	f.t.	E	tr.t. I	tr.t. II	tr.t. III
0	165.5	-	125.0	84.0	32.0
5	155.0	-	123.0	79.0	31.0
10	149.0	133.0	120.0	47.0	26.0
15	141.5	134.0	118.0	47.0	29.0
20	134.5	-	117.0	46.5	27.5
25	140.0	134.0	118.0	47.0	25.5
30	141.5	134.0	117.5	46.0	29.0
35	142.0	-	-	-	-
40	141.0	78.0	-	-	-
45	137.0	80.0	-	-	-
50	132.0	83.0	-	-	-
55	121.0	83.5	-	-	-
60	110.0	82.5	-	-	-
65	100.5	87.5	-	-	-
70	89.5	-	-	-	-
75	99.5	88.5	-	-	-
80	106.0	89.0	-	-	-
85	120.0	89.0	-	-	-
90	129.5	85.0	-	-	-
95	138.5	-	-	-	-
100	146.8	-	-	-	-

Ammonium nitrate ($H_4O_3N_2$) + Acetamide (C_2H_5ON)

Khaishbashev, 1945

%	f.t.	E	tr.t. I	tr.t. II	tr.t. III
0	165.5	-	125	84.0	32.0
5	154.0	-	121.5	54.0	30.0
10	140.8	-	120.0	55.0	29.0
15	124.5	-	120.0	54.0	30.0
20	120.5	-	-	60.0	31.0
25	112.5	-	-	54.0	29.0
30	105.6	-	-	57.0	30.0
35	92.8	-	-	55.5	30.2
40	85.0	35.2	-	61.0	25.0
45	67.5	37.0	-	54.0	27.0
50	56.6	37.5	-	-	29.0
55	49.0	37.5	-	-	29.0
60	40.5	37.5	-	-	29.0
65	40.0	37.5	-	-	29.0
70	46.0	37.5	-	-	26.0
75	50.0	37.5	-	-	26.3
80	50.5	35.0	-	-	24.0
85	61.6	33.0	-	-	-
90	67.5	30.0	-	-	-
95	73.0	28.0	-	-	-
100	79.0	-	-	-	-

Ammonium nitrate ($H_4O_3N_2$) + Urea (CH_4ON_2)

Khaishbashev, 1945

%	f.t.	E	tr.t. I	tr.t. II	tr.t. III
0	165.5	-	125	84	32
5	144.8	-	120	53.8	30.5
10	124.0	-	120	53.8	31.0
15	119.0	-	-	54.0	29.0
20	114.0	-	-	54.0	29.0
25	105.0	-	-	54.0	29.0
30	84.4	44.5	-	-	30.0
35	73.5	45.5	-	55.2	29.5
40	64.0	48.0	-	-	30.0
45	53.0	49.0	-	-	29.3
50	54.2	49.0	-	-	29.0
55	62.5	49.0	-	-	27.0
60	69.5	49.0	-	-	25.0
70	84.4	48.0	-	-	25.0
80	100.5	49.0	-	-	20.0
90	115.5	47.2	-	-	-
95	124.0	41.0	-	-	-
100	133.2	-	-	-	-

A.N.Campbell and A.J.R.Campbell, 1947

E: 48.27 mol% 46.9°

Ammonium nitrate ($H_4O_3N_2$) + Ethylene diamine dinitrate ($C_2H_{10}O_6N_2$)

A.N.Campbell and A.J.R.Campbell, 1947

%	f.t.	E	%	f.t.	E
10	151	132	50	100.2	103
20	137	124tr.t.		101.75	104
30	122	97.3	60	102.5	102.1
40	110	97.3	80	135.5	124.5
50	98.2	96.8	90	148	-

50% d^{100} = 1.633

Ammonium nitrate ($H_4N_2O_3$) + + Octadecylamine nitrate ($C_{18}H_{38}O_3N_2$)

Campbell, A.N. and A.J.R., 1947

%	f.t.	%	f.t.
100	76.1	80	73.0
90	74.0	60	72.3

Ammonium nitrate ($H_4N_2O_3$) + Aniline hydrochloride (C_6H_8NCl)

Klug and Pardee, 1945

mol %	f.t.	mol %	f.t.
2.75	160.50	36.29	155.00
2.95	159.90	38.20	155.50
4.51	153.10	38.80	155.58
5.58	150.50	40.36	158.28
6.39	151.18	43.00	160.41
6.42	150.50	48.12	165.00
7.72	149.30	53.49	168.70
8.45	149.08	59.05	174.00
9.14	146.18	65.10	178.20
9.84	146.89	71.23	182.18
10.10	146.80	75.00	182.25
10.83	147.80	77.81	183.59
11.42	149.65	80.13	183.51
13.38	152.70	84.15	183.60
17.17	154.64	84.80	183.19
20.94	155.30	89.20	184.88
24.97	151.87	92.14	183.52
28.71	150.90	93.30	184.32
29.18	150.17	95.24	187.30
30.65	152.30	100	198.00
33.59	152.99		

(4+1)

Ammonium nitrate ($H_4N_2O_3$) + Aniline nitrate ($C_6H_7N_2O_3$)

Klug and Pardee, 1945

mol%	f.t.	mol%	f.t.
2.62	129.97	31.92	157.18
2.65	164.89	35.45	158.15
5.39	161.50	38.93	157.93
8.38	156.40	43.27	159.05
9.56	154.04	46.93	160.18
10.49	154.14	48.46	160.32
11.18	156.02	51.72	161.21
12.79	156.72	55.55	162.57
15.05	157.25	56.80	164.69
16.74	157.52	60.75	164.95
19.51	157.69	67.30	167.62
21.77	157.94	73.98	169.00
23.84	157.17	80.25	173.28
25.08	156.74	90.02	181.70
27.48	157.70	100.00	187.80
29.64	157.63		

Ammonium nitrate ($H_4N_2O_3$) + Guanidine nitrate ($CH_6O_3N_4$)

Urbanski and Skrzynecki, 1936

%	f.t.	E	%	f.t.	E
0	169.4	-	50	157.1	127.2
10	152.5	127.5	60	169.1	127.2
20	137.2	127.7	70	179.4	126.5
25	129.5	127.7	80	190.5	126.4
30	131.1	127.7	90	202.0	122.0
40	145.1	127.2	100	216.6	-

Ammonium nitrate ($H_4N_2O_3$) + Nitroguanidine ($CH_4O_2N_4$)

Urbanski and Skrzynecki, 1936

%	f.t.	E	%	f.t.	E
0	169.4	-	40	162.5	131.5
10	148.8	129.7	50	175.6	-
15	142.0	131.5	60	182.9	-
20	131.5	131.5	70	135.0	-
25	138.8	131.6	80	133.0	-
30	146.1	131.5	90	134.0	-
35	157.8	131.5	100	232.0	-

Ammonium nitrate ($H_4N_2O_3$) + Nitrocellulose ($C_{12}H_{14}O_{22}N_6$)

Urbanski, 1938

%	explosion velocity (m/sec.)
20	3160
30	3320
40	3600
50	4060
100	5400

Ammonium nitrate ($H_4N_2O_3$) + Methyl alcohol (CH_4O)

Humburg, 1893

%	d	$(\alpha)^{mol}_{magn.}$
	16°	
94.32	0.8297	2.2080
86.75	.8584	2.1840
100	.7941	1.5898

Chatterji and Bose, 1950

t	η(relative)	
	83.6%	78.6%
35	1.880	-
40	.862	2.315
45	.852	.102
50	.856	.101

Ammonium nitrate ($H_4N_2O_3$) + Mannitol ($C_6H_{14}O_6$)

Khaishbashev, 1945

%	f.t.	E	tr.t.
0	165.5	-	125.84
10	151.0	87.7	123.81
20	132.0	89.0	123.5; 82°
25	123.5	88.5	77.5
30	117.2	87.3	80.5
35	112.8	90.5	77.3
40	106.5	92.2	78.0
45	102.0	94.2	80.0
50	97.0	95.0	79.0
52	95.0	-	80.0
55	100.2	94.0	80.0
60	105.0	94.5	74.0
65	112.9	94.6	78.0
70	119.0	94.5	79.0
75	125.3	94.0	75.0
80	134.0	92.5	-
90	150.0	87.0	-
100	166.0	-	-

Ammonium nitrate ($H_4N_2O_3$) + Cholesterol ($C_{27}H_{46}O$)

Khaishbashev, 1845

%	f.t.	E	tr.t.
0	165.5	-	125.0
10	164.0	139.0	122.5
20	164.4	140.0	121.5
30	163.5	141.5	120.0
40	163.0	142.3	120.0
50	162.0	141.5	120.0
60	163.0	141.0	120.0
70	161.5	141.8	120.0
80	160.5	143.0	120.0
90	159.0	144.0	-
95	155.5	144.0	-
97	144.0	-	-
100	148.0	-	-

Ammonium nitrate ($H_4N_2O_3$) + Resorcinol ($C_6H_6O_2$)

Khaishbashev, 1945

%	f.t.	E	tr.t.
0	165.5	-	125.0;84.0;32.0
10	152.5	77.0	123.0;53.5;30.2
20	145.0	91.5	120.0;52.5;29.0
30	136.5	91.5	118.0;55.5;29.5
40	130.0	92.5	120.0;53.5;23.0
45	125.0	93.0	- 55.5;26.0
50	123.0	92.5	119.5;53.5;27.5
60	115.0	93.5	- 50.5;29.3
70	104.5	93.5	- 49.0;29.5
80	94.0	-	- 49.0;28.0
90	101.0	94.0	- 49.0;28.0
100	108.0	-	- - -

Ammonium nitrate ($H_4N_2O_3$) + Phenol . Urea ($C_{13}H_{16}O_3N_2$)

Campbell, A.N. and A.J.R., 1947

%	f.t.	%	f.t.
10	159.5	55	115.0

Ammonium nitrate ($H_4N_2O_3$) + Trinitrotoluene ($C_7H_5O_6N_3$)

Urbanski, 1938

%	P Kg	%	P Kg
For 10 % of probability of explosion			
100	1.3	50	0.5
90	0.9	40	0.45
80	0.8	30	0.5
70	0.7	20	0.85
60	0.6	10	0.3
For 50 % of probability of explosion			
100	3.9	50	3.6
80	3.0	40	5.0
60	3.2		

Khaishbashev, 1945

%	f.t.	E	tr.t.
0	165.5	-	125.0
5	165.0	-	123.4
10	165.0	78.3	124.4
20	165.0	77.0	123.0
30	165.0	79.9	123.8
40	165.0	78.9	122.8
50	165.3	78.6	118.4
60	165.0	79.5	121.4
70	165.0	78.4	120.0
80	165.0	78.2	120.4
90	163.0	79.3	-
95	162.6	78.8	-
100	80.0	-	-

Ammonium nitrate ($H_4N_2O_3$) + Picric acid ($C_6H_3O_7N_3$)

Khaisbashev, 1945

%	f.t.	E	tr.t. I	tr.t. II
0	165.5	-	125	84.0
5	156.3	-	118	61.0
10	152.0	-	119.5	72.0
15	151.8	-	120.0	61.3
20	150.0	-	120.0	80.0
25	148.3	-	120.0	79.3
30	148.3	-	115.2	70.5
35	149.0	-	120.0	79.2
40	149.0	-	120.0	65.8
45	147.5	-	120.0	-
50	149.0	-	116.0	68.5
55	150.2	-	114.4	69.0
60	149.0	-	116.0	-
65	149.5	-	114.4	-
70	148.0	-	115.0	-
75	148.2	-	114.4	-
80	150.0	114.8	-	-
85	140.0	116.0	-	-
90	126.0	116.0	-	-
95	120.0	116.0	-	-
97	-	116.0	-	-
100	120.0	-	-	-

Ammonium nitrate ($H_4N_2O_3$) + Acetic acid ($C_2H_4O_2$)

Davidson and Geer , 1933

mol%	f.t.	mol%	f.t.
100.0000	16.60	80.64	102.6
99.9259	16.57	76.70	106.3
99.8713	16.47	72.36	108.9
99.7168	17.7	68.75	110.6
99.6751	21.4	62.02	113.1
99.6084	27.0	56.69	115.8
99.4857	33.6	52.44	117.0
99.1255	45.8	48.33	118.3
98.366	61.2	44.50	120.0
98.113	63.5	39.90	121.4
97.532	67.6	36.90	122.9
97.364	69.0	33.20	124.8
96.761	71.4	28.40	128.9
96.553	72.8	25.00	131.4
95.290	78.3	21.40	136.9
94.492	80.9	17.70	143.1
92.745	85.7	13.70	149.7
91.380	89.0	10.40	157.8
86.320	97.1	0.00	167.5
82.850	101.0		

W. TWO INORGANIC NON METALLIC SUBSTANCES .

LXXII. ELEMENTS + INORGANIC SUBSTANCES .

Hydrogen (H_2) + p-Hydrogen (H_2)

Urey and Teal, 1935

%	t equil.	%	t equil.
100.00	-273	25.96	-73
99.82	-253	25.24	-23
76.89	-223	25.13	0
38.51	-173	25.07	+27
28.54	-123		

Hydrogen (H_2) + Deuterohydrogen (HD)

Newman, 1955

Dew point pressures are 1.5% greater than predicted by Raoult's Law.

Hydrogen (H_2) + Deuterium (D_2)

Newman, 1955

Dew point pressures are 3% greater than predicted by Raoult's Law.

Van Cleave and Maass, 1935

mol%	η (vapour) +22°	η (vapour) -78.5°	η (vapour) -183.4°
99.00	12.388	-	-
95.72	12.309	-	-
90.03	12.133	-	-
78.29	11.850	8.831	4.978
50.44	10.810	8.101	4.601
25.91	9.880	7.316	4.233
0.00	8.788	-	3.793

P_2	η	P_2	η
22°			
1.0000	12.425	0.7829	11.850
0.9900	12.388	.7634	11.743
.9608	12.310	.6513	11.382
.9572	12.309	.4998	10.882
.9111	12.170	.2591	9.880
.9003	12.133	.2564	9.913
.8677	12.050	.0000	8.788

De Troyer, van Itterbeek and Rietveld, 1951

%	η	%	η
at room t.			
0	8.750	38.5	10.29
13.8	9.303	50.0	10.70
14.1	9.493	50.0	10.70
25.1	9.751	62.1	11.18
25.35	9.852	100.0	12.38
38.1	10.280		

Archer, 1938

%	heat conductivity coefficient . 10^6
0°	
0	418.2
19.8	382.4
34.5	364.7
50.4	350.4
60.5	341.1
81.3	323.1
99.95	308.0

Hydrogen (H_2) + Helium (He)

van Itterbeek, Nihoul and al., 1956 (fig.)

Constants of state, by an indirect acoustical method.

Gibby, Tanner and Masson, 1929

%	a	b.10^4	%	a	b.10^4
	25°			50.0°	
100.00	1.09085	5.10	100.00	1.1827	5.07
83.49	.0912	5.67	50.11	.1836	6.44
73.99	.0909	5.92	0.00	.1832	6.71
66.64	.0904	5.97			
57.54	.0911	6.36			
50.11	.0916	6.38			
50.06	.0915	6.41			
42.42	.0915	6.56			
33.00	.0901	6.62			
26.40	.0904	6.61			
16.26	.0905	6.56			
	75.0°			100.38°	
100.00	1.2748	5.02	100.00	1.3669	4.86
50.11	.2751	6.37	50.11	.3696	6.43
0.00	.2748	6.86	0.00	.3669	6.93
	125.2°			150.1°	
100.00	1.4605	4.94	100.00	1.5486	4.62
50.11	.4592	6.20	50.11	.5494	4.41
0.00	.4582	7.02	0.00	.5516	4.93
	175.0°				
100.00	1.6337	4.87			
50.11	.6455	6.20			
0.00	.6420	6.87			

$pv = a + bp$

Gille, 1915

%	η 0°	η 15°	η 100°
100	18.925	19.611	23.408
97.98	18.500	19.133	22.307
94.44	17.596	18.319	22.032
92.63	17.327	17.846	21.555
85.65	16.032	16.528	19.860
72.36	14.306	14.769	17.847
56.74	12.267	12.652	15.174
31.44	10.165	10.548	12.646
0.00	8.410	8.776	10.450

Trautz and Narath, 1926

%	η	%	η
		15°	
0.0	8.77	66.7	18.42
25.0	12.24	75.0	19.20
33.3	14.84	100.0	19.60
50.0	16.91		

Trautz and Kipphan, 1929

t	η	t	η	t	η
	78.37%		48.70%		19.60%
22.8	17.05	23.2	13.61	21.5	10.65
100.3	19.99	100.0	15.93	100.0	12.51
200.4	23.41	200.4	18.67	200.0	14.68

Trautz and Binkele, 1930

t	η 0%	η 30.82%	η 39.31%	η 44.80%	η 100%
20	8.75	11.66	12.52	13.17	19.74
100	10.29	13.83	14.78	15.51	23.20
200	12.11	16.19	17.28	18.17	27.15
250	12.96	17.32	18.52	19.39	29.03

Trautz and Zimmermann, 1935

%	η	%	η
		-183.2°	
0.00	3.706	68.52	6.997
25.05	4.811	76.62	7.450
42.71	5.659	100.00	8.841

Van Itterbeek, Van Paemel and Van Lierde, 1947

%	η	%	η
		18.5°	
0.0	8.81	56.5	13.97
18.9	10.57	68.3	15.36
35.3	12.02	81.1	16.86
50.3	13.43	100.0	19.69

For thermal diffusion, see authors.

van Itterbeek and Van Doninck, 1946

%	velocity of sound (m/sec.)
-252.9°	
100	375.5
78.6	341.1
60.8	317.7
41.4	297.6
19.6	279.2
0	265.9

For the velocity of sound as a function of pressure, see authors .

Hydrogen (H_2) + Neon (Ne)

Trautz and Binkele, 1930

t	η 0%	11.05%	22.85%	53.91%	74.80%	100%
20	8.75	13.01	16.84	24.27	27.82	30.92
100	10.29	15.29	19.81	28.45	32.69	36.23
200	12.11	17.95	23.19	33.27	38.07	42.20
250	12.96	19.17	24.76	35.40	40.54	45.01

Trautz and Zimmermann, 1935

%	η	%	η
	-183.2°		
0.00	3.706	68.0	11.337
21.70	7.021	84.84	12.395
35.75	8.927	100.00	13.110

Van Itterbeek, Van Paemel and Van Lierde, 1947

%	η	%	η
	17.2°		
0.0	8.78	65.7	26.79
16.1	14.67	79.5	29.01
34.7	20.37	100.0	31.16
50.5	23.00		

For thermal diffusion, see authors.

Hydrogen (H_2) + Argon (A)

Tanner and Masson, 1930

P	pv*	P	pv*
	83.52%	25°	
124.884	1.07043	126.826	1.07087
104.033	.07046	111.047	.08045
92.222	.07134	89.690	.07124
69.639	.07336	70.501	.07313
47.982	.07751	47.405	.07763
29.133	.08201	28.921	.08249
33.299	.08083	35.167	.07989
41.318	.07907	42.727	.07868
57.302	.07574	57.787	.07539
76.865	.07200	77.572	.07233
98.698	.07061	100.718	.07091
119.992	.07097	119.447	.07057

*pv = 1.09229 - 0.0003990 p + 0.00000182 p^2

pv = a + bp + cp_2

%	a	$b.10^4$	$c.10^6$
	25°		
16.44	1.09113	5.53	0.30
33.08	.09142	3.74	0.69
50.00	.09172	1.59	1.03
50.11	.09172	1.63	0.98
66.62	.09200	-0.97	1.43
83.52	.09229	-3.99	1.82

t	a	$b.10^4$	$c.10^6$
	50%		
25	1.09172	1.59	1.03
50	.18927	2.42	0.98
75	.27481	3.34	0.71
100	.36635	4.13	0.53
125	.45788	4.70	0.42
150	.54940	5.32	0.29
174	.63795	5.91	0.00
	0%		
25	1.09085	6.56	-
50	.18205	6.80	-
75	.27407	6.89	-
100	.36621	6.97	-
125	.45801	7.05	-
150	.54994	7.11	-
174	.63892	7.10	-
	100%		
25	1.09258	-7.30	2.19
50	.18419	-5.13	1.91
75	.27579	-3.34	1.70
100	.36738	-1.83	1.47
125	.45899	-0.32	1.12
150	.55058	+0.97	0.90
174	.63852	+1.66	1.00

Trautz and Ludewigs, 1929

%	η 19°	100°	200°	250°
0	8.75	10.27	12.11	12.96
5.76	11.62	13.78	16.25	17.41
11.84	13.97	16.63	19.48	20.93
16.49	15.51	18.44	21.67	23.48
25.64	17.27	20.67	24.27	26.94
33.35	18.43	22.14	26.14	28.12
86.91	21.90	26.54	31.64	34.01
100.00	22.10	26.83	32.08	34.44

Trautz and Binkele, 1930

t	η 0%	34.85%	37.38%	55.43%	70.58%	100%
20	8.75	18.57	18.45	20.56	21.40	22.11
100	10.29	22.38	22.75	24.88	25.86	26.84
200	12.11	26.36	26.97	29.48	30.70	32.08
250	12.96	28.26	28.94	31.64	33.10	34.48

Heath, 1953

%	η	%	η
	18°		
100	22.2	40	18.8
80	21.6	20	15.0
60	20.4	0	8.8

van Itterbeek and van Doninck, 1946

%	velocity of sound		
	-183°	-178°	-173°
85.6	189.7	184.5	178.8
54.6	232.0	225.2	218.6
36.1	278.5	270.4	262.3
19.5	358.5	348.0	337.6

For the velocity of sound as a function of pressure, see authors.

Ibbs and Hirst, 1929

%	heat conduct..10^6	%	heat conduct..10^6
		0°	
100.0	39	40.0	187
91.0	55	19.8	270
82.0	73	0.0	404
60.0	125		

Hydrogen (H_2) + Xenon (Xe)

Ewald, 1955

mol %	P	mol %	P
	-118°		
13.4	4.06	4.25	13.79
13.1	4,06	2.60	25.36
14.5	4.06	2.45	26.65
11.8	4.47	1.71	45.03
11.8	4.47	1.58	52.58
7.62	6.92	1.35	72.04
7.64	6.99	1.33	87.2
7.00	7.87	1.52	110.9
5.50	10.19		

Trautz and Heberling, 1934

%	η			
	20°	127°	227°	277°
100	22.60	30.09	36.52	39.54
74.36	22.68	30.11	36.49	39.43
49.33	22.54	29.27	35.71	38.54
20.48	20.38	26.41	31.31	33.58
11.20	17.72	22.54	26.56	28.44
0.00	8.75	10.87	12.49	13.45

Hydrogen (H_2) + Oxygen (O_2)

Deutsch, 1907

mol%	Diffusion constant (cm^2/sec.)
15°	760 mm
25	0.767
50	.777
75	.804

Jackmann, 1906

mol%	Diffusion constant (cm^2/sec.)
15°	760 mm
25.2	0.767
50.0	0.759

Klein, 1905

%	t	η	t	η	t	η
0.00	13.0	8.73	100.4	10.50	183.8	12.12
5.21	14.7	10.91	99.5	13.08	183.1	15.00
8.78	14.0	11.88	100.1	14.03	-	-
15.61	12.8	13.51	99.3	16.50	183.3	18.90
33.33	18.5	16.90	99.4	20.33	182.6	23.40
56.78	14.2	18.73	100.2	22.84	-	-
81.26	19.6	20.17	99.8	24.32	183.4	28.17
95.55	14.7	20.12	100.0	24.84	183.6	28.91
100.00	16.75	20.24	99.74	24.88	185.8	28.91

Schmidt, 1909

t	η	t	η	t	η
0%		5.21%		8.78%	
14.5	8.77	14.7	10.91	14.0	11.88
100.5	10.46	99.5	13.08	100.1	14.30
185.3	12.12	183.1	15.00		
15.61%		33.33%		56.78%	
12.8	13.51	18.5	16.90	14.2	18.73
99.3	16.50	99.4	20.33	100.2	22.84
183.3	18.90	182.6	23.40		
81.26%		95.55%		100%	
19.6	20.17	14.7	20.12	16.8	20.23
99.8	24.32	100.0	24.84	99.7	24.85
183.4	28.17	183.6	28.91	185.8	28.85

Trautz and Norath, 1926

%	η	%	η
		15°	
0	8.77	66.7	14.28
25	9.84	75	16.17
33.3	10.76	100	20.14
50	12.26		

Trautz and Melster, 1930

mol%	η			
	26.9°	126.9°	226.9°	276.9°
100	20.57	25.68	30.17	32.20
81.65	20.19	25.07	29.50	31.47
60.55	19.25	23.81	27.90	29.78
39.70	17.84	21.92	25.56	27.33
21.92	14.94	18.58	21.58	22.88
13.67	13.14	16.02	18.67	19.91
4.14	10.53	12.82	14.88	15.89
0.00	8.89	10.87	12.59	13.81

van Itterbeek, Van Paemel and Van Lierde, 1947

%	η	%	η
		20.4°	
0	8.85	52.7	18.68
16.1	14.09	67	19.54
27.3	16.15	100	20.40
38.0	17.39		

For thermal diffusion, see authors.

van Itterbeek and De Clippeleir, 1947

%	t	$(\varepsilon - 1) \cdot 10^6$
	406 mm	
0	30.00	222
12	30.12	234
27	30.03	270
52.8	29.92	321
75.4	30.22	393
92	30.01	470
100	30.31	540

Wassiljewa, 1904

%	heat conduct. 10^6	%	heat conduct. 10^6
0	397.6	80	98.9
5.26	374.4	84.62	91.9
14.29	321.7	87.5	83.4
25	274.9	93.94	71.4
33.33	237.3	96.64	65.1
50	182.7	100	63.3
75	111.2		

Mallard and Le Chatelier, 1880

vol%	wt%	t° of inflammability
15	73.84	560 - 570
30	87.27	552 - 569
66	96.89	530 - 532

Cassel, 1916

mol %	inflammability	
	t	P
14.3	658	75
20.0	593	64
33.3	492	39
50.0	453	33
60.0	394	24
80.0	429	30

Michelson, 1889

vol%	speed of inflammability (cm/sec.)
	room temp.
80.57	121
78.17	161
16.19	582
13.13	447
11.47	360
8.10	151

Coward, Cooper and Jacobs, 1914

mol%	p	p_1	p_2
	ignition pressure (mm)		
	15 mm air-gap		
7.7	485	448	37
8.3	341	313	28
11.1	212	188	24
14.3	183	157	26
20.0	149	119	30
25.0	123	92	31
33.3	103	69	34
50.0	66	33	33
60.0	53	21	32
63.3	53	19	34
66.7	45	15	30
75.0	52	13	39
83.3	54	9	45
88.2	57	7	50
90.9	72	7	65
91.2	68	6	62
93.3	80	5	75

mol%	p ignition press. (mm)	mol%	p ignition press. (mm)
17 mm air-gap		40 mm air-gap	
20.0	93	33.3	8.7
33.3	63.5	52.4	7.9
50.0	53.5	59.2	7.3
66.7	46	66.0	7.9
80.0	46	79.0	8.1
		89.0	8.9

Hydrogen (H_2) + Nitrogen (N_2)

(see also the system : Nitrogen + Ammonia) .

Verschoyle, 1931

P	% L	% V	P	% L	% V
		-185°			
137.73	53.0	49.2	56.09	-	13.8
132.81	58.0	28.8	41.04	90.8	14.7
128.08	61.3	25.5	26.76	94.7	16.7
118.34	65.5	21.7	17.01	97.6	23.0
104.00	71.7	17.9	2.39	100.0	100.0
80.00	79.3	13.4			
		-195°			
190.89	45.1	38.3	79.90	82.5	7.8
185.08	52.1	30.0	55.56	88.1	6.3
176.63	57.0	24.1	36.59	92.7	7.0
161.88	62.1	18.7	17.19	97.7	9.5
147.37	66.6	16.0	1.10	100.0	100.0
113,60	75.2	10.5			
		-205°			
224.81	68.9	14.6	89.67	95.3	4.7
222.84	69.3	11.9	89.55	84.6	4.5
210.28	70.4	11.7	55.88	90.6	2.7
209.28	70.4	13.0	45.89	92.4	2.1
176.40	74.8	9.7	35.98	93.4	2.4
147.44	78.0	9.2	26.58	95.4	2.4
147.41	78.1	7.8	17.19	96.7	2.7
118.47	81.9	5.6	0.29	100.0	100.0
		-210°			
215.12	77.8	7.1	118.41	85.7	5.2
215.12	77.9	-	89.58	88.0	3.7
205.46	78.4	6.5	89.55	87.9	-
205.41	79.0	8.5	56.03	92.2	-
176.43	81.1	6.3	55.59	91.5	2.6
176.40	80.5	6.7	55.50	91.7	1.6
176.40	80.9	-	46.11	92.4	1.8
147.44	87.2	-	36.30	94.3	1.6
147.41	82.7	-	26.70	95.9	1.9
147.40	82.8	4.3	17.09	97.3	2.0
147.35	83.7	-	12.21	97.5	1.6
118.48	85.4	3.2	12.19	98.1	-
118.45	84.8	-	12.15	98.0	1.3
118.44	85.3	4.3	0.12	100.0	100.0

V + L + C

P	t	P	t
29.8	-211.06	150.3	-211.96
99.0	-211.91	215.2	-211.75

t	P	%	P	%
	plait - point		contact	
-185	138	47	60	13
-195	191	42	50	6.5
-205	340	-	35	2
-210	-	-	25	1.5

	vapour		
P	%	P	%
	-212.5°		
205.45	7.19	104.18	2.33
186.05	4.76	104.07	2.58
186.05	5.18	89.61	3.21
176.39	4.74	56.22	1.38
176.38	4.64	51.96	0.78
166.77	4.60	40.44	0.89
128.15	3.28	17.47	1.29
128.15	3.84		
	-215°		
215.16	4.37	128.19	2.42
186.14	3.46	80.22	1.64
166.80	2.97	55.95	0.78
128.22	1.85	26.74	0.34

Shtekkel and Tsin, 1939 (fig.)

P	mol% L	mol% V	P	mol% L	mol% V
	-183°			-185.5°	
2	100	100	10	100	100
10	96	51	15	99	82
20	94	27	20	96	72
30	92	21	30	92	58
40	89	19	40	91	51
60	83	17	50	87	47
70	81	17	60	82	45
80	78	18	80	73	49
90	74	20	90	64	56
94	72	21	91	62	62
	-160°			-160°	
18	100	100	50	88	60
20	99	92	60	82	59
30	95	73	70	77	61
40	92	65	74	66	66

Wiebe and Gaddy, 1938

%	PV 25 atm.	PV 200 atm.	PV 1000 atm.
		0°	
0	1.0520	1.1327	1.7036
12.5	.0136	.1317	.7563
24.4	-	.1273	.7989
48.2	1.0062	.1081	.8829
73.8	0.9999	.0789	.9727
100.0	0.9910	.0363	2.0676
		100°	
0	1.3327	1.5069	2.0780
12.5	-	.5111	.1338
24.4	-	.5148	.1844
48.2	1.3512	.5142	.2813
73.8	-	.5054	.3834
100.0	1.3747	.4889	.4857
		300°	
0	2.1293	2.2393	2.8026
12.5	.1322	.2499	.8702
24.4	.1323	.2596	.9323
48.2	.1363	.2755	3.0554
73.8	.1432	.2914	.1842
100.0	.1469	.3127	.3203

Trautz and Emert, 1926

p	excess pressure (Dalton law)
22.8°	
745	0.13

Bartlett, 1927

%	PV/P_oV_o 1	50	100	200	300
P	1	50	100	200	300
0	1.0000	1.0337	1.0665	1.1383	1.2099
11.5	.0000	.0318	.0621	.1295	.2072
24.6	.0000	.0270	.0580	.1286	.2037
44.9	.0000	.0199	.0459	.1162	.1990
54.1	.0000	.0174	.0398	.1053	.1870
65.9	.0000	.0101	.0280	.0928	.1760
74.0	.0000	.0051	.0201	.0801	.1682
86.3	.0000	0.9958	.0042	.0619	.1546
93.9	.0000	.9905	0.9948	.0505	.1456
100.0	.0000	.9846	.9846	.0392	.1386

P	400	600	800	1000 atm.
0	1.2827	1.4267	1.5723	1.7148
11.5	.2842	.4422	.5875	.7551
24.6	.2892	.4597	.6325	.8037
44.9	.2898	.4810	.6804	.8776
54.1	.2845	.4855	.6925	.9039
65.9	.2755	.4951	.7198	.9386
74.0	.2720	.5029	.7365	.9667
86.3	.2659	.5149	.7671	2.0193
93.9	.2645	.5228	.7831	.0436
100.0	.2589	.5253	.8021	.0694

%	d (g/l) 1atm.	50 atm.	100 atm.	200 atm.	300 atm.
0.0	0.0898	4.3436	8.420	15.777	22.266
11.5	.2233	10.820	21.024	39.539	55.492
24.6	.3754	18.276	35.482	66.524	93.561
44.9	.6110	29.953	58.418	109.47	152.87
54.1	.7179	35.281	69.042	129.90	181.44
65.9	.8548	42.312	83.151	156.44	218.06
74.0	.9489	42.204	93.020	175.80	243.68
86.3	1.0917	54.815	108.71	205.61	283.65
83.9	.1799	59.560	118.60	224.63	308.98
100.0	.2507	63.513	127.03	240.70	329.71

%	d 400 atm.	600 atm.	800 atm.	1000 atm
0.0	28.003	37.765	45.691	52.367
11.5	69.553	92.899	111.82	127.23
24.6	116.47	154.31	183.96	208.12
44.9	189.49	247.53	290.88	325.41
54.1	223.56	289.96	339.33	377.06
65.9	268.07	343.04	397.62	440.93
74.0	298.40	378.82	437.16	482.48
86.3	344.96	432.38	494.23	540.63
93.9	373.23	464.89	529.37	577.36
100.0	397.39	491.98	555.21	604.37

Bartlett and Cupples, 1928

P	PV/P$_o$V$_o$ 0°	50°	99.85°	198.9°	299.8°	399.3°
			0%			
1	1.0000	1.1831	1.3656	1.7283	2.0978	2.4621
50	0.9846	.1888	.3888	.7683	-	-
100	0.9846	.2046	.4114	.8071	.1978	.5729
200	1.0365	.2742	.4958	.9073	2.3119	.6944
300	.1335	.3711	.5971	2.0169	.4279	.8166
400	.2557	.4870	.7112	.1407	.5498	.9422
600	.5214	.7473	.9650	.3914	.8034	3.1949
800	.7959	2.0155	2.2273	.6510	3.0615	.4559
1000	2.0641	.2825	.4942	.9165	.3195	.7196
			100%			
1	1.0000	1.1831	1.3656	1.7283	2.0952	2.4621
50	.0330	.2182	.4026	.7684	-	-
100	.0639	.2521	.4359	.8030	2.1700	2.5141
200	.1336	.3272	.5105	.8804	.2502	.6054
300	.2045	.3986	.5836	.9556	.3240	.6800
400	.2775	.4720	.6563	2.0295	.3977	.7625
600	.4226	.6160	.7999	.1726	.5394	-
800	.5665	.7582	.9415	.3157	.6762	-
1000	.7107	.9006	2.0839	.4568	.8125	-

25 vol%

P	0°	25°	50°	99.85°	198.9°	299.8°
1	1.0000	1.0915	1.1831	1.3656	1.7283	2.0978
50	.0269	.1219	.2144	.3992	.7676	-
100	.0583	.1543	.2495	.4298	.8065	2.1757
200	.1278	.2200	.3282	.5068	.8915	.2659
300	.2064	.2995	.4034	.5870	.9741	.3519
400	.2890	.3805	.4862	.6700	2.0531	.4356
600	.4587	.5510	.6577	.8912	.2283	.6085
800	.6342	.7215	.8277	2.0130	.3958	.7765
1000	.8029	.8904	.9964	.1865	.5648	.9495

Bartlett, Hetherington and al., 1930

PV/P$_o$V$_o$

100 %

P	20°	-25°	-50°	-70°
0	1.0738	0.9090	0.8174	0.7441
1	.0735	.9082	.8162	.7432
25	-	-	-	-
50	-	-	-	.6747
75	-	0.8700	-	.6503
100	1.0745	.8676	0.7438	.6362
125	.0836	.8738	.7433	.6340
150	.0963	.8817	.7514	.6430
200	.1320	.9151	.7854	.6823
300	.2293	1.0179	.8986	.8053
400	.3467	.1445	1.0334	.9477
500	-	.2798	.1748	1.0914
600	.6098	.4186	.3159	.2331
800	.8817	.6958	.5928	.5111
1000	2.1481	.9600	.8573	.7783

25 vol%

P	20°	-25°	-50°	-70°
0	1.0724	0.9077	0.8163	0.7431
1	.0733	.9084	.8168	.7435
25	-	.9187	.8254	.7510
50	1.1029	.9320	.8367	.7597
75	-	.9449	.8484	.7704
100	1.1351	.9597	.8618	.7820
125	-	.9760	.8753	.7951
150	-	.9909	.8903	.8096
200	1.2014	1.0265	.9259	.8433
300	.2808	.1025	1.0007	.9185
400	.3622	.1831	.0837	1.0023
500	-	.2679	.1696	.0901
600	.5327	.3547	.2570	.1776
800	.7042	.5277	.4309	.3536
1000	.8729	.6986	.6028	.5269

0%

P	20°	-25°	-50°	-70°
0	1.0719	0.9073	0.8159	0.7428
1	.0732	.9085	.8170	.7438
25	-	.9230	.8307	.7566
50	-	.9384	.8447	.7703
75	-	.9540	.8598	.7852
100	1.1391	.9706	.8756	.8003
125	.1558	.9867	.8922	.8155
150	.1731	1.0034	.9082	.8306
200	.2079	.0383	.9411	.8640
300	.2799	.1093	1.0112	.9340
400	.3511	.1808	.0832	1.0075
500	.4240	.2542	.1568	.0804
600	.4958	.3272	.2301	.1555
800	.6391	.4717	.3755	.3018
1000	.7795	.6139	.5185	.4443

Bennett and Dodge, 1952

p	$pv/p_o v_o$	p	$pv/p_o v_o$
	75.0 %		
25°		25°	
3024.55	4.2281	1999.01	3.1875
2817.97	4.0131	1500.01	2.6477
2476.57	3.6876	1006.54	2.0864
2286.86	3.4924		
50°		50°	
3020.86	4.3489	1516.04	2.7695
2506.94	3.8259	1003.81	2.1860
2027.05	3.3240		
75°		75°	
3004.26	4.4310	1507.08	2.8674
2493.05	3.9181	1004.64	2.2900
2009.84	3.4090		
100°		100°	
2995.79	4.5278	1499.63	2.9562
2514.50	4.0436	985.62	2.3695
2009.56	3.5121		
125°		125°	
3019.91	4.6523	1496.74	3.0552
2518.87	4.1494	1005.49	2.4975
2025.93	3.6292		
	43.5 %		
25°		25°	
3034.07	3.8451	1505.60	2.4835
2499.21	3.3856	1007.58	1.9941
2032.20	2.9744		
50°		50°	
2989.17	3.9111	1518.37	2.5910
2488.95	3.4841	998.03	2.0831
2025.49	3.0645		
75°		75°	
3028.66	4.0472	1506.91	2.6792
2497.34	3.5927	994.99	2.1790
2006.95	3.1446		
100°		100°	
3005.95	4.1274	1517.44	2.7871
2491.47	3.6868	995.42	2.2768
2000.70	3.2405		
125°		125°	
2993.92	4.2212	1511.00	2.8805
2520.10	3.8610	997.00	2.3859
2009.38	3.3497		
	24.7 %		
25°		25°	
3001.29	3.4441	1552.27	2.3282
2519.53	3.0976	1000.27	1.8961
2016.46	2.7193		
50°		50°	
2995.41	3.5368	1502.61	2.4081
2507.04	3.1853	996.15	1.9906
2019.91	2.8171		
75°		75°	
3024.59	3.6529	1503.82	2.5042
2486.79	3.2626	999.33	2.0890
2011.89	2.9049		
100°		100°	
3027.48	3.7516	1495.71	2.5912
2483.75	3.3563	995.04	2.1785
2019.73	3.0038		
125°		125°	
2994.57	3.8266	1528.15	2.7135
2491.87	3.4562	1001.20	2.2788
2028.19	3.1037		

B.N. Volume is expressed in cc/g and pressure in mm .

Jackmann, 1906

mol%	Diffusion constant (cm^2/sec.)
23.5	0.746
50.0	0.736

Kleint, 1905

%	t	η
100.00	14.6	17.42
80.03	15.7	17.14
63.80	14.2	16.59
46.45	14.6	15.85
17.39	17.0	13.28
6.32	16.7	11.16
0.00	13.0	8.73
100.00	99.8	21.25
80.03	99.6	20.77
63.80	99.7	20.11
46.45	99.8	19.21
17.39	99.9	15.93
6.32	99.9	13.29
0.00	100.4	10.50
100.00	182.8	24.59
80.03	183.1	24.05
63.80	183.4	23.21
46.45	183.4	22.16
17.39	183.2	18.29
6.32	183.2	15.29
0.00	183.8	12.12

Schmidt, 1909

t	η	t	η
	100 %		
14.0	17.38	183.0	24.64
101.1	21.34		
	80.03 %		
15.7	17.14	183.1	24.05
99.6	20.77		
	63.80 %		
.14.2	16.59	183.4	23.21
99.7	20.11		
	46.45 %		
14.6	15.85	183.4	22.16
99.8	19.21		
	17.39 %		
17.0	13.28	182.2	18.29
99.9	15.93		
	6.38 %		
16.7	11.16	183.2	15.29
99.9	13.29		
	0 %		
14.5	8.77	185.3	12.12
100.5	10.46		

Trautz and Narath, 1926

%	η	%	η
		15°	
0	8.77	66.7	12.66
25	9.42	75	14.20
33.3	10.07	100	17.44
50	11.18		

Trautz and Baumann, 1929

%	η		
	-78°	-38°	+19°
0	6.76	7.54	8.74
19.23	9.86	11.16	13.05
20.49	-	-	-
32.81	-	-	-
33.28	11.00	12.53	14.72
49.19	-	-	-
49.47	-	-	15.98
50.63	11.83	13.61	-
79.79	12.46	14.40	17.03
81.95	-	-	-
100.00	12.63	14.64	17.39
	+100°	+200°	+250°
0	10.30	12.12	12.97
19.23	-	-	-
20.49	15.53	18.27	19.52
32.81	17.42	20.56	22.02
33.28	-	-	-
49.19	-	22.30	23.85
49.47	19.00	-	-
50.63	-	-	-
79.79	-	-	-
81.95	20.50	24.12	25.75
100.00	20.84	24.61	26.29

van Itterbeek, Van Paemel and Van Lierde, 1947

%	η	%	η
+18.9°		+17.9°	
0	8.82	0	8.77
13.6	12.16	16	12.51
18.7	13.05	44.1	15.60
29.6	14.52	62	16.60
40.0	15.44	75.9	16.77
51.7	16.13	86.6	17.42
69.0	16.84	100.0	17.52
100.0	17.46		
-183.0°		-191.0°	
0	3.92	0	3.62
16.0	5.23	16	4.73
35.1	6.04	35.1	5.09
44.1	6.20	44.1	5.19
62.0	6.29	62	5.33
75.9	6.40	76	5.37
86.6	6.45	100.0	5,44
100.0	6.51		

Heath, 1953 (fig.)

%	η	%	η
		18°	
100	17.4	40	14.6
80	16.8	20	12.5
60	16.0	0	8.8

van Itterbeek and Vandoninck, 1944

P	velocity of sound	P	velocity of sound
	-183.0°		
	100%		79.8%
0.750	191.9	0.742	215.6
.731	191.7	.534	216.1
.608	192.0	.410	216.1
.495	192.4	.321	216.7
.416	192.5	.204	216.8
.375	192.5	.094	216.9
.292	192.8		
.182	192.4		
.165	192.5		
.105	192.7		
	77.7%		61.6%
0.693	218.5	0.713	245.2
.571	218.8	.609	245.4
.454	218.8	.514	245.6
.342	219.0	.412	245.7
.214	219.6	.292	245.9
.091	219.8	.118	246.2
	54.5%.		45.0%
0.547	260.4	0.688	285.6
.414	260.6	.625	285.9
.291	260.9	.518	286.1
.195	261.1	.342	286.1
.088	261.1	.210	286.4
		.095	286.6
	30.2%		0%
0.704	340.4	0.981	772.8
.590	340.5	.610	772.7
.478	340.5	.409	772.7
.403	340.5	.314	772.9
.304	340.6	.192	772.8
.195	340.6	.192	772.9
.091	340.7	.118	772.7

Ferry, 1898

p	luminosity		
current (M.A.)	2	4	6
	6563 Å		
	0%		
3.8	4	8	13
2.7	6	12	18
1.4	8	16	23
0.7	10	20	29
	5%		
3.32	5	9	15
2.24	6	12	19
1.75	7	14	22
0.83	10	20	-
0.35	15	29	-
	36%		
1.73	4	8	-
0.80	6	13	-
0.51	7	15	-
0.35	9	17	-
	43%		
0.75	4	8	-
0.39	7	15	-
	6465 Å		
	5%		
3.32	invisible	-	invisible
1.75	barely visible	-	barely visible
0.75	1	-	2
0.35	2	-	5
	36%		
2.75	7	-	19
1.73	8	-	20
0.80	10	-	25
0.35	13	-	30
	47%		
3.95	8	-	24
2.35	9	-	26
0.80	13	-	38
0.38	17	-	50
	71%		
4.11	13	-	40
1.73	16	-	47
0.80	19	-	55
0.35	24	-	70
	95%		
3.60	18	-	56
2.75	19	-	56
0.80	27	-	80
0.45	31	-	92
	100%		
4.4	17	36	54
2.2	20	-	61
1.3	25	-	73
0.7	27	-	83
0.3	35	-	109

p	luminosity		p	luminosity	
current(M.A.)	2	6		2	6
		6542 Å			
	5%			36%	
3.32	-	-	2.75	10	28
1.75	1	1	1.73	11	30
0.75	2	4	0.80	14	40
0.35	3	6	0.35	17	48
	47%			71%	
3.95	13	40	4.11	15	45
2.35	14	42	1.73	22	65
0.80	19	58	0.80	30	92
0.38	23	70	0.35	35	105
	91%			100%	
3.60	27	80	4.4	26	78
2.75	28	84	2.2	29	88
0.80	42	125	1.3	35	108
0.45	47	140	0.7	45	133
			0.3	51	158
		6622 Å			
	5%			36%	
3.32	3	7	2.75	16	45
1.75	4	10	1.73	18	50
0.75	7	16	0.80	23	65
0.38	7	17	0.35	27	75
	47%			71%	
3.95	21	62	4.11	33	100
2.35	23	68	1.73	36	105
0.80	31	95	0.80	44	134
0.38	38	115	0.35	59	175
	91%			100%	
3.60	45	135	4.4	47	145
2.75	46	140	2.2	48	148
0.80	55	168	1.3	56	168
0.45	68	205	0.7	65	193
			0.3	83	257
		6701 Å			
	5%			36%	
3.32	2	2	2.75	13	35
1.75	3	7	1.73	16	43
0.75	5	12	0.80	21	58
0.35	5	13	0.35	23	64
	47%			71%	
3.95	20	60	4.11	32	95
2.35	22	65	1.73	35	105
0.80	27	80	0.80	43	120
0.38	33	100	0.35	48	145
	91%			100%	
3.60	41	122	4.4	44	133
2.75	42	125	2.2	49	145
0.80	53	160	1.3	53	160
0.45	59	180	0.7	61	178
			0.3	68	215

Edwards and Roseveare, 1942

mol %	2nd Virial coefficient B_{12} Amagat units . 10^4
25°	
0	+6.60
48.17 (?)	+6.31
100	-2.00

Kudryavtsev, 1947 (fig.)

%	a (cm^{-1})
17°	947 KHz Herzen
100	0.25
80	0.6
60	0.9
40	1.2
20	1.5
0	1.8

a = sound absorption coefficient.

Ibbs and Hirst, 1929

%	heat cond.10^6	%	heat cond.10^6
100.0	55	20.5	252
84.1	80	19.7	257
61.0	127	0.0	404
34.8	192		

van Itterbeek, 1955

Thermodiffusion by ultrasounds method (see author)

Hydrogen (H_2) + Chlorine (Cl_2)

Maass and Mc Intosh, 1912

%(HCl)*	f.t.	%	f.t.
100.0	-112.0	32.4	-112.4
79.5	124.6	19.9	107.9
72.4	126.6	13.0	103.6
59.4	122.1	0.0	-101.5
55.5	-120.5		

E :-127° *HCl (Cl + HCl)

Trautz and Narath, 1926

745 - 760 mm

t	η	t	η
0%		31.56 mol%	
20.4	8.91	252.3	25.16
27.0	9.08		
53.0	9.61	34.95 mol%	
101.0	10.57		
156.0	11.59	152.6	20.93
199.0	12.34	197.0	22.89
250.3	13.23	200.0	23.04
10.15 mol%		35.90 mol%	
19.85	13.38	17.1	14.50
56.0	14.76	50.0	16.12
100.0	16.33	99.0	18.55
12.05 mol%		39.74 mol%	
157.3	18.77	250.0	25.27
200.0	20.24		
14.95 mol%		41.10 mol%	
250.0	22.81	21.9	14.66
		50.0	16.06
24.75 mol%		99.0	18.48
98.7	18.30	42.09 mol%	
154.4	20.55	150.8	20.84
25.20 mol%		198.0	23.02
23.3	14.82	100%	
51.0	16.11	20.5	14.31
25.89 mol%		53.0	15.95
		98.0	18.27
200.0	22.61	151.0	20.81
250.2	24.55	202.0	23.12
		251.0	25.34

Hydrogen (H_2) + Bromine (Br_2)

Büchner and Karsten, 1908 - 09

mol%*	wt%	f.t.	E
0.0	0.0	-87.3	-
1.2	2.34	-88	-94
3.3	6.31	-91	-95
9.6	17.34	-73.5	-95.5
17.4	29.38	-61.5	-96
31.6	47.71	-48	-93
41.0	57.84	-41.5	-95
50.5	66.83	-35.5	-
55.8	71.38	-32.5	-
69.0	81.47	-24.5	-
77.6	87.25	-19.6	-
87.7	93.37	-13.4	-

* mol% Br_2 (HBr + Br_2)

Deuterium (D_2) + Argon (A)

van Itterbeek and Van Doninck, 1946

%	t	velocity of sound (m/sec.)
68.4	-183	200.5
68.4	-188	195.1
68.4	-193	189.2

For the velocity of sound as a function of pressure, see authors.

Deuterium (D_2) (para + ortho)

Urey and Teal, 1935

%	t equil.	%	t equil.
100.00	-273	66.67	-73
97.97	-253	66.67	-23
79.19	-223	66.67	0
67.82	-173	66.67	+27
66.75	-123		

Deuterium (D_2) + Tritium (Tr)

Kerr, 1952

50% atom.

t	molar volume	t	molar volume
-249.10	24.11	-251.41	23.39
249.88	23.79	252.04	23.09
250.52	23.68	252.43	23.05
250.60	23.695	253.60	22.66
-250.70	23.53	-253.61	22.74

Helium (He^4) + Helium (He^3)

Eselson and Bereznyak, 1955 (fig.)

beginning of condensation

t	p 0%	1.9%	4.0%	11.6%
-271.45	2	-	-	4
271.05	10	-	16	18
270.65	36	38	45	52
270.25	86	95	102	120
269.85	170	180	195	225
-269.65	220	-	-	280

t	p 29.0%	35.4%	57.6%
-271.45	6	8	15
-271.05	26	35	50
-270.65	72	86	125
-270.25	150	176	255
-270.05	212	236	-

t	p 73.4%	82.4%	100%
-271.65	5	20	50
271.45	24	36	82
271.05	76	110	135
270.65	180	230	336
-270.45	242	295	-

end of condensation

t	p 0%	0.4%	0.8%	1.9%	3.0%
-271.05	-	-	-	5	5
-270.65	5	6	8	10	15
-270.25	22	26	30	35	42
-269.85	65	75	80	88	100
-269.45	135	145	160	175	190
-269.25	180	190	210	225	245

t	p 4.0%	6.3%	8.3%	11.1%	13.4%
-271.05	12	15	18	22	25
270.65	20	25	30	36	45
270.25	50	60	70	85	95
269.85	110	125	145	160	185
-269.45	210	-	255	285	305

t	p 16.7%	19.2%	22.6%	23.9%
-271.05	22	25	30	36
270.65	55	65	70	85
270.25	114	135	142	166
269.85	200	230	250	285
-269.45	340	-	-	-

t	p			
	30.2%	38.3%	52.7%	56.3%
-271.05	50	60	75	-
270.65	105	125	165	180
270.25	195	230	290	310
-269.85	330	-	-	-

t	p			
	73.4%	82.4%	90.8%	100%
-271.45	45	56	68	75
271.05	110	130	150	180
270.65	220	255	288	338
270.45	285	330	370	-

Eselson, Berezuyak and Kaganov, 1956

mol%	tr.t.	mol%	tr.t.
91.7	-271.08	77.4	-271.30
88.9	271.14	76.1	271.34
86.6	271.16	69.8	271.45
83.3	271.23	61.7	271.57
80.8	-271.25		

Eselson and Lazarov, 1954

%	P crystall. (Kg/cm^2)			
	-270.80°	-271.10°	-271.40°	-271.60°
0	50	38	30	26
25	61	48	37	30
50	73	58	45	38
58	78	63	50	43

Walters and Fairbank, 1956 (fig.)

%	sat.t.	%	sat.t.
10	-272.84	60	-272.32
20	272.66	70	272.40
40	272.42	80	272.62
50	-272.36	90	-272.78

Helium (He) + Neon (Ne)

Nasini and Rossi, 1928

%	η	
	11°	100°
0.00	19.29	23.35
3.40	20.00	24.18
28.61	24.20	29.21
49.95	26.60	32.00
68.04	27.80	33.62
78.50	28.45	34.31
90.91	29.17	35.25
94.61	29.31	33.35
99.00	29.50	35.49

Trautz and Kipphan, 1929

%	η		
	20°	100°	200°
79.59	30.04	35.20	41.04
42.19	26.91	31.58	36.84
21.26	24.03	28.26	33.03

Trautz and Binkele, 1930

t	η				
	0%	23.79%	43.76%	73.41%	100%
20	19.41	24.29	27.02	29.71	30.92
100	22.81	28.46	31.71	34.79	36.23
200	26.72	33.27	37.02	40.56	42.20
250	28.53	35.55	-	43.10	45.01

Trautz and Zimmermann, 1935

%	η	%	η
	-183°		
0.00	8.841	68.82	12.738
12.09	9.994	86.55	13.042
20.39	10.661	100.00	13.110
38.27	11.709		

Van Itterbeek, Van Paemel and Van Lierde, 1947

%	η
21.7°	
40.7	27.221
39.0	26.425
37.9	26.097

For thermal diffusion, see authors.

Atkins, Bastick and Ibbs, 1939

vol%	k_t
80	0.0531
70	.0724
60	.0864
50	.0970
40	.1004

k_t = Thermal diffusion coefficient for 15° and 100°

Helium (He) + Argon (A)

Tanner and Masson, 1930

$pv = a + bp + cp^2$

%	a	b.10^4	c.10^6
25°			
16.43	1.09113	5.69	0.08
17.06	.09107	5.63	.11
33.45	.09143	5.13	.23
50.07	.09172	3.89	.42
50.11	.09172	3.58	.60
65.45	.09200	0.94	1.14
83.55	.09230	-2.79	1.79

t	a	b.10^4	c.10^6
50.11%			
25	1.09172	3.58	0.60
50	.13321	4.14	.52
75	.27475	4.49	.53
100	.36629	5.14	.29
125	.45780	5.66	.12
150	.54931	6.00	.08
174	.63782	6.28	.00

t	a	b.10^4
0%		
25	1.09188	5.15
50	.18352	5.08
75	.27500	5.01
100	.36671	4.98
125	.45875	4.89
150	.55137	4.85
174	.63776	4.87

For 100%, see : Hydrogen + Argon

Lonius, 1908

mol%	Diffusion constant (cm^2/sec.)
15°	
27.3	0.679
31.5	.693
67.7	.712
76.3	.730

Tänzler, 1906

%	η 0°	100°	183°
100.000	21.19	27.46	32.31
95.074	21.32	27.45	32.18
90.930	21.43	27.68	32.44
85.715	21.53	27.84	32.54
80.744	21.66	27.90	32.50
77.055	21.65	27.85	-
68.458	21.66	27.77	32.53
61.193	22.07	28.07	32.44
53.374	22.05	27.85	-
29.147	21.89	27.52	-
19.215	21.42	26.58	30.39
0.000	18.91	23.48	26.99

%	t	η	%	t	η
100.000	12.0	22.00	68.458	22.1	23.16
95.074	12.6	22.19	61.193	21.6	23.41
90.930	11.3	22.17	53.374	20.9	23.34
85.715	13.7	22.44	29.147	19.1	23.03
80.744	19.7	22.94	19.215	18.9	22.46
77.055	20.5	23.01	0.000	15.3	19.69

Schmitt, 1909

t	η	t	η	t	η
	100%		95.074%		90.930%
13.17	22.07	12.6	22.19	11.3	22.17
99.70	27.51	99.8	27.45	99.6	27.68
183.30	32.43	182.7	32.18	183.1	32.44
	85.715%		80.744%		77.055%
13.7	22.44	19.7	22.94	20.5	23.01
99.9	27.84	99.6	27.90	99.8	27.85
184.3	32.54	183.1	32.50		
	68.458%		61.193%		53.474%
22.1	23.16	21.6	23.41	20.9	23.34
99.5	27.77	99.4	28.07	99.5	27.85
183.1	32.53	183.6	32.44		
	29.147%		19.215%		0%
19.1	23.03	18.9	22.46	17.6	19.67
99.9	27.52	99.8	26.58	18.7	19.80
		183.0	30.39	99.8	23.37
				183.7	26.81

Trautz and Narath, 1926

%	η	%	η
		15°	
0	19.60	66.7	18.26
25	17.97	75	19.42
33.3	17.48	100	22.17
50	17.52		

Trautz and Kipphan, 1929

%	η 20°	η 100°	η 200°
36.60	22.86	27.50	32.61
59.66	23.04	27.87	32.88
75.65	22.70	26.87	31.54

Trautz and Binkele, 1930

t	η 0%	η 50.94%	η 61.80%	η 65.95%	η 100%
20	19.73	22.96	22.91	22.78	22.11
100	23.20	27.50	27.45	27.36	26.84
200	27.15	-	32.50	-	32.04
250	29.03	-	34.88	-	34.48

Rietveld, Van Itterbeek and van den Berg, 1953

%	η	%	η
		17.9°	
100	21.76	100	21.73
82.6	22.28	88.6	22.23
65.2	22.70	80.35	22.43
55.1	23.06	79.9	22.40
53.2	23.02	70.8	22.81
45.2	22.93	61.8	22.94
38.45	22.96	49.0	23.09
35.05	22.75	46.1	23.11
25.2	22.46	40.6	23.04
15.45	21.76	29.8	22.90
0	19.35	19.6	22.29
		10.3	21.01
		0	19.12
	-43.7°		-80.7°
100	17.68	100	15.38
88.65	18.08	88.7	15.74
80.5	18.33	80.55	15.96
80.0	18.38	80.1	15.94
71.0	18.54	71.1	16.13
62.1	18.70	62.2	16.25
46.4	18.96	49.4	16.62
40.9	19.06	46.5	16.58
30.1	19.17	41.1	16.81
19.9	18.74	30.3	16.88
10.5	17.99	20.0	16.64
0	16.44	10.55	16.07
		0	14.60

%	η -183°	η -192.1°	η -201.2°
100	7.60	7.05	6.35
82.8	8.28	7.37	6.79
65.7	8.61	7.97	7.21
55.7	8.89	8.28	7.52
53.8	8.95	8.28	7.57
45.85	-	8.55	7.78
39.1	9.35	8.72	8.01
35.7	9.48	8.83	8.08
25.8	9.69	9.19	8.45
15.9	9.71	9.02	8.34
0	9.12	8.59	7.98

Heath, 1953 (fig.)

%	η	%	η
		18°	
100	22.2	30	23.2
80	22.9	10	21.5
60	23.2	0	19.0
45	23.5		

Wachsmuth, 1909 and Ibbs and Hirst, 1929

%	heat cond.10^6	%	heat cond.10^6
100.00	38.94	15.32	232.00
72.96	74.15	5.39	293.90
54.63	107.70	0.00	338.60

Van Itterbeek and Van Doninck, 1946

%	velocity of sound (m/sec.)		
	-183°	-188°	-193°
100	176.0	-	-
87.3	187.9	182.4	177.2
61.4	218.7	212.9	206.1
43.6	251.8	244.6	237.6
21.4	326.9	317.7	308.2

%	velocity of sound (m/sec.)		
	-183° (0.7-0.1atm.)	-188° (0.6-0.1atm.)	-193° (0.4-0.1atm.)
21.4	326.5 - 327.0	317.0 - 317.5	307.5 - 308.5
43.6	250.5 - 251.5	243.5 - 244.5	236.0 - 237.5
61.4	217 - 218.5	211.0 - 212.5	204 - 205.5
87.3	185.5 - 187.5	179.5 - 182.0	175 - 176.5

Atkins, Bastide and Ibbs, 1939

vol%	k_t (15° - 100°)
90	0.0250
80	.0476
70	.0660
60	.0810
50	.0931

k_t = Thermal diffusion coefficient

Helium (He) + Xenon (Xe)

Ewald, 1955

P	mol%	P	mol%
	-118°		
4.40	11.9	30.1	1.73
4.40	11.7		.76
4.47	11.3	30.3	.75
4.47	11.4	39.9	.30
4.61	11.0		.34
4.61	11.1	49.9	.10
6.58	7.89		.09
6.58	7.84	54.8	.00
8.42	6.05		.03
	6.05	81.8	0.67
8.42	6.27		.70
13.2	3.85	99.9	.59
	3.73		.62
16.7	3.11	107.5	.55
	3.08		.54
26.5	1.98		
	2.00		

Trautz and Heberling, 1934

mol%	η			
	20°	127°	227°	277°
100	22.60	30.09	36.52	39.54
66.82	23.89	31.41	37.78	40.75
48.41	24.75	32.20	38.48	41.41
24.70	25.50	32.48	38.29	40.99
9.88	24.29	30.28	30.29	37.63
0	19.41	24.04	28.92	29.77

Atkins, Bastide and Ibbs, 1939

vol %	k_t (15°-100°)
90	0.0211
80	0.0422
70	0.0618
60	0.0810
50	0.1007

k_t = Thermal diffusion coefficient .

Helium (He) + Krypton (Kr)

Nasini and Rossi, 1928

%	η		%	η	
	16°	100°		16°	100°
0.00	19.52	23.35	70.98	25.16	31.27
10.21	23.35	27.85	81.00	24.93	31.15
20.46	24.97	30.01	88.45	24.75	30.96
30.86	25.61	31.09	94.54	24.64	30.76
49.95	25.59	31.42	100.00	24.41	30.68

Atkins, Bastide and Ibbs, 1939

vol %	k_t (15°-100°)
70	0.0677
60	0.0852
50	0.1000
40	0.1080
30	0.1068

k_t = Thermal diffusion coefficient .

Helium (He) + Nitrogen (N_2)

Edwards and Roseveare, 1942

mol%	2nd Virial coefficient B_{12}
25°	
0	5.26
48.17 (?)	5.60
100	-2.00

Pfefferle, jr., Goff and Miller, 1955
Virial coefficients at 30°

mol%	B . 10^4 ($atm.^{-1}$)	C . 10^6 ($atm.^{-2}$)
100	-1.68	+2.400
78.392	+2.099	+1.505
49.253	+5.066	+0.597
19.651	+5.590	+0.141
0	+4.778	+0.056

Heath, 1953 (fig.)

%	η	%	η
18°			
100	17.4	40	19.0
80	17.8	20	19.2
60	18.4	16	19.5
		0	19.0

Roebuck and Osterberg, 1938

t	Joule-Thomsen coefficient			
P	1	20	60	100 Atm.
		24.5%		
250	-6.73	-6.68	-6.62	-6.61
200	-6.31	-6.30	-6.32	-6.32
150	-5.84	-5.90	-6.00	-6.01
100	-5.26	-5.40	-5.57	-5.64
50	-4.52	-4.68	-5.00	-5.10
0	-3.50	-3.66	-4.07	-4.20
-50	-2.11	-2.21	-2.61	-3.00
100	+0.98	+0.52	-0.28	-1.03
125	+3.50	+2.66	+1.46	+0.32
		49.0%		
250	-4.82	4.77	-4.89	-4.89
200	-3.68	-3.71	-4.00	-4.23
150	-2.46	-2.51	-2.98	-3.39
100	-0.80	-1.03	-1.65	-2.27
50	+1.21	+0.87	+0.10	-0.77
0	+3.93	+3.41	+2.48	+1.26
-50	+8.01	+7.21	+5.78	+4.00
-87.5	+13.01	+11.51	+9.08	+6.70
		66.8%		
250	-2.26	-2.42	-3.00	-3.54
200	-0.93	-1.22	-1.84	-2.53
150	+0.78	+0.38	-0.34	-1.19
100	+2.97	+2.52	+1.52	+0.56
50	+6.00	+5.34	+4.03	+2.83
0	+10.28	+9.38	+7.44	+5.93
-50	+17.42	+15.84	+12.53	+10.08
-87.5	+26.65	+24.03	+18.76	+14.58
		83.4%		
250	+0.26	-0.03	-0.76	-1.41
200	2.18	+1.74	+0.80	0.00
150	4.39	3.92	2.72	+1.64
100	7.33	6.66	5.22	3.98
50	11.39	10.56	8.68	7.02
0	17.39	16.27	13.71	11.14
-50	27.60	25.41	21.00	16.60
-87.5	40.67	+36.79	+28.41	+21.57

t	Joule-Thomsen coefficient		
P	140	180	200 Atm.
		24.5%	
250	-6.59	-6.56	-6.45
200	-6.32	-6.32	-6.27
150	-6.02	-6.08	-6.04
100	-5.66	-5.71	-5.76
50	-5.18	-5.28	-5.36
0	-4.44	-4.63	-4.79
-50	-3.39	-3.72	-3.97
-100	-1.81	-2.49	-2.92
-125	-0.86	-1.69	-2.28
		49.0%	
250	-4.91	-5.03	-5.05
200	-4.41	-4.61	-4.70
150	-3.72	-4.04	-4.18
100	-2.80	-3.28	-3.48
50	-1.50	-2.10	-2.39
0	+0.24	-0.56	-0.97
-50	+2.62	+1.41	+0.89
-87.5	+4.82	+3.29	+2.63
		66.8%	
250	-3.77	-4.02	-4.02
200	-2.81	-3.08	-3.22
150	-1.55	-1.98	-2.23
100	-0.11	-0.63	-1.02
50	+1.86	+0.86	+0.41
0	+4.36	+2.78	+2.03
-50	+7.73	+5.00	+4.00
-87.5	+10.87	+6.91	+5.62
		83.4%	
250	-1.94	-2.17	-2.25
200	-0.63	-1.18	-1.33
150	+0.84	+0.18	-0.19
100	+2.82	+1.87	+1.34
50	+5.38	+3.96	+3.21
0	+8.59	+6.40	+5.43
-50	+12.59	+9.56	+8.11
-87.5	+15.95	+12.19	+10.35

Neon (Ne) + Argon (A)

Trautz and Kipphan, 1929

%	η 20°	100°	200°
70.38	24.22	29.08	34.46
46.18	26.35	31.35	36.90
27.70	28.11	33.21	38.86

Trautz and Binkele, 1930

t	η 100%	74.20%	60.91%	26.80%	0%
20	22.13	24.01	25.04	28.08	30.92
100	26.93	28.85	29.90	33.13	36.23
200	32.22	34.13	35.29	38.90	42.20
250	34.60	36.58	37.93	41.50	45.01

Rietveld and Van Itterbeek, 1956

%	η	%	η
	17.9°		
100	22.10	32.27	27.93
83.23	23.39	16.93	29.61
67.57	24.69	0	31.35
49.70	26.36		
	-44.2°		
100	17.95	43.08	22.58
83.20	19.24	33.48	23.39
65.07	20.63	16.54	25.00
50.17	21.82	0	26.70
	-79.8°		
100	15.29	32.92	20.27
82.98	16.38	16.98	21.79
66.90	17.32	0	23.52
50.24	18.75		
	-182.9°		
100	7.75	32.65	11.16
83.90	8.51	16.34	12.37
67.13	9.22	0	13.52
48.28	10.18		
	-200.9°		
100	6.38	32.31	9.52
83.00	7.00	16.13	10.56
67.07	7.70	0	11.72
50.11	8.52		

Atkins, Bastick and Ibbs, 1939

vol%	k_t (15-100°)
80	0.0233
70	.0339
60	.0407
50	.0457
40	.0467

k_t = Thermal diffusion coefficient

Neon (Ne) + Krypton (Kr)

Atkins, Bastick and Ibbs, 1939

vol%	k_t (15-100°)
80	0.0325
70	.0445
60	.0556
50	.0667
40	.0735

k_t = Thermal diffusion coefficient

Neon (Ne) + Xenon (Xe)

Atkins, Bastick and Ibbs, 1939

vol%	k_t (15-100°)
80	0.024
70	.0418
60	.0536
50	.0633
40	.0716

k_t = Thermal diffusion coefficient

Argon (A) + Xenon (Xe)

Atkins, Bastick and Ibbs, 1939

vol%	k_t (15-100°)
70	0.0134
60	.0170
50	.0189
40	.0196
30	.0179

k_t = Thermal diffusion coefficient

Argon (A) + Krypton (Kr)

Veith and Schröder, 1937 (fig.)

mol%	f.t.	m.t.	mol%	f.t.	m.t.
0	-189.5	-	60	-174	-182.5
20	-187	-189.5	80	-160.5	-168
40	-183	-187.5	100	-157	-

Heastie, 1955 (fig.)

mol%	f.t.	m.t.	mol%	f.t.	m.t.
0	-189	-	80	-163	-168.5
20	-187	-188	90	-160	-161.5
40	-180	-185.5	100	-157.5	-
60	-171	-180			

Halsey and Freeman, 1956

Crit.t. = -211°

Eucken and Veith, 1936

t	U		t	U	
	100%	59.5%		100%	59.5%
-263	1.34	-	-228	5.82	5.63
260.5	2.07	1.83	223	6.00	5.86
258	2.72	2.37	218	6.15	6.04
255.5	3.23	2.90	213	6.30	6.27
253	3.71	3.34	208	6.45	6.42
248	4.44	4.13	203	6.61	6.64
243	4.96	4.63	198	6.78	6.88
238	5.32	5.10	-193	6.97	7.10
-233	5.58	5.42			

Atkins, Bastick and Ibbs, 1939

%	k_t (15-100°)
60	0.0114
50	.0137
40	.0154
30	.0143
20	.0116

k_t = Thermal diffusion coefficient

Argon (A) + Oxygen (O_2)

Clark, Dinn and Robb, 1954

mol%	p				
	-183°	-178°	-173°	-168°	-163°
0	1000.2	1600	2431	3545	4994
10	990.8	1586	2412	3521	4964
20	975.7	1565	2384	3482	4914
30	956.8	1537	2345	3431	4849
40	934.6	1505	2300	3372	4770
50	909.4	1467	2250	3303	4682
60	881.7	1426	2192	2226	4581
70	851.5	1381	2131	3141	4472
80	818.9	1333	2063	3050	4352
90	783.8	1281	1990	2950	4221
100	745.0	1223	1907	2838	4073

mol%(L)	mol%(V)				
	-183°	-178°	-173°	-168°	-163°
0	0	0	0	0	0
10	8.88	8.99	9.09	9.18	9.27
20	17.54	17.77	17.99	18.20	18.39
30	26.09	26.48	26.83	27.15	27.44
40	34.71	35.25	35.74	36.18	36.58
50	43.59	44.26	44.86	45.39	45.87
60	52.91	53.65	54.32	54.92	55.47
70	62.87	63.64	64.33	64.95	65.50
80	73.77	74.47	75.09	75.64	76.13
90	85.98	86.45	86.86	87.23	87.55
100	100	100	100	100	100

Burbo and Ishkin, 1936

p	mol %		p	mol %	
	L	V		L	V
			-186°		
556	94.8	92.3	686	44.5	37.1
586	85.0	78.7	706	33.0	27.5
616	74.9	66.3	716	26.4	22.1
646	63.5	54.1	730	14.2	12.5
666	54.5	45.8			
			-183°		
760	96.05	93.9	940	44.25	37.3
800	86.80	81.0	960	35.00	29.7
840	77.00	68.4	980	24.10	20.5
880	65.70	56.5	990	16.60	13.9
910	55.85	47.2			
			-178°		
1250	95.45	93.3	1510	45.00	38.0
1310	85.85	80.2	1550	33.10	28.3
1370	75.30	67.6	1570	24.80	21.6
1430	63.20	55.0	1580	18.20	16.2
1470	54.60	46.5			

Masson and Dolley, 1923

P	Dv*	P	Dv*
	80.01%		
30	0.25	80	0.2
40	.25	90	.25
50	.20	100	.25
60	.20	110	.3
70	.20	120	.2
75	.20	125	.25

$$* \ Dv = \left(\frac{\text{vol. mix.}}{\text{vol}_1+\text{vol}_2}\right) \cdot 100$$

Fastovskii and Petrovski, 1955

mol% L	mol% V	p	t
17.0	13.4	912	-183.9
16.8	13.2	1143	-181.6
16.9	14.3	1293	-180.3
16.9	14.5	1524	-178.5
39.9	33.7	917	-183.5
40.1	34.0	1143	-181.2
40.1	34.0	1290 (?)	-179.9
39.9	34.1	1524	-178.0
50.3	42.3	912	-183.3
50.4	42.7	1135	-181.0
50.2	47.0	1296	-179.6
50.4	47.0	1529	-177.7
60.9	53.5	908	-183.0
61.0	53.4	1144	-180.6
61.1	54.0	1288	-179.3
61.1	54.2	1526	-177.4
72.3	63.2	908	-182.6
72.2	63.2	1146	-180.2
72.0	64.2	1291	-178.9
72.0	64.6	1529	-177.0
78.9	70.6	909	-183.2
78.9	71.5	1134	-180.0
78.8	71.9	1291	-178.6
78.7	71.9	1515	-176.8

Veith and Schröder, 1937 (fig.)

mol%	f.t.	m.t.	mol%	f.t.	m.t.
0	-189.5	-	87.90	-215.61	-217.35
20	193	-186	90.27	217.04	217.18
40	198	201.5	94.64	217.45	217.57
60	204	208	96.70	217.55	-217.70
79.95	211.56	217.33	100	-218.92	-
84.94	-214.07	-217.43			

Federova, 1939

%	f.t.	m.t.	%	f.t.	m.t.
0	-189.1	-189.1	77	-211.9	-215.6
31	-196.2	-202.2	79	-214.4	-218.2
42.5	-199.0	-204.9	80	-218.2	-218.2
50	-201.2	-207.2	90	-218.0	-218.3
60	-203.6	-211.2	96	-218.0	-218.6
75	-209.2	-214.2	100	-219.1	-219.1

Fastovskii and Krestinskii, 1942

mol%	f.t.	mol%	f.t.
0	-189.6	26.9	-195.96
7.3	-191.07	33.2	-197.17
19.8	-194.07	44.2	-200.86

Din, Goldman and Monroe, 1955

Solid solutions, with a gap between 79 and 85%
A break in the liquidus curve at 87.5% and -218.1°

Prikhotka, 1939

Absorption spectra in the crystal lattice

triplets	w.l. (layer thickness = 20 mm)
63%	
I	2803.0
	2802.8
	2791.3
	2788.5
	2778.2
II	2745.4
	2733.6
	2721.2
III	2695.0
	2683.2
	2669.5
IV	2646.0
	2631.1
	2623.2
V	2600.4
	2588.8
	2580.4

Argon (A) + Nitrogen (N_2)

Inglis, 1906

mol% L	mol% V	p	mol% L	mol% V	p
-188.5°			-194.09°		
0.0	0.0	100.0	0.0	0.0	200.0
5.3	25.5	130.6	3.4	16.7	233.2
7.3	34.3	140.7	10.7	39.2	297.8
11.4	44.5	162.9	19.7	55.5	371.8
16.6	55.5	190.2	27.8	65.4	435.7
21.0	61.4	211.2	40.5	75.8	529.7
25.6	66.5	232.2	51.0	82.1	599.0
30.5	71.2	254.5	60.4	86.4	660.4
33.4	73.6	267.1	72.8	91.5	746.0
37.5	76.8	284.8	82.8	94.8	815.5
41.8	80.0	304.2	90.8	97.6	872.5
44.5	81.5	315.6	99.7	99.7	931.0
48.4	83.0	330.1			
52.2	84.6	346.4			
56.4	86.4	361.1			
57.3	87.2	366.0			
63.1	89.2	388.7			
68.6	91.0	408.5			
74.8	93.0	432.5			
79.2	94.2	453.3			
84.0	95.9	467.5			
88.9	97.0	489.7			
93.9	98.4	509.8			
99.4	99.9	530.0			
100.0	100.0	531.0			

Holst and Hamburger, 1916

t	p	t	p
100%			
-192.28	1138.0	-201.06	396.6
-194.66	878.1	-203.87	264.6
99 vol%			
-192.10	1151.6	-201.87	350.9
-197.73	863.5		
82.6 vol%			
-190.53	1218.1	-199.14	451.0
-194.63	781.5		
65.3 vol%			
-189.67	1175.9	-198.63	424.2
-194.63	686.5		
31.5 vol%			
-186.61	1162.3	-194.70	487.8
-189.69	852.2		
10.0 vol%			
-183.30	1198.6	-189.69	631.2
-185.47	972.0		
0%			
-183.21	1001.0	-189.32	522.6
-185.38	801.7	-189.38	518.7
-185.40	802.2	-189.45	514.1
-189.14	533.9	-189.54	509.2

v/v_n	p	v/v_n	p
74.05 vol %			
-189.62°			
0.4424	514.2	0.2107	1052.0
0.35415	638.7	0.1854	1079.8
0.2853	786.8	0.1854	1079.0
0.2423	921.3	0.1773	1088.9
0.2117	1045.5	0.16825	1099.1
-194.54°			
0.6956	309.1	0.35405	595.3
0.4421	481.4	0.28495	630.4
0.3550	597	0.28495	631.6
0.35405	594.5	0.2419	650.9
-199.38°			
0.8861	228.4	0.44135	350.95
0.6954	290.2	0.3530	363.2
0.5657	326.1		
-196.94°			
1.3964	150.6	0.6303	330.2
0.9439	221.7	0.56285	340.5
0.71225	293.0	0.4690	357.5
0.6310	330.0	0.40385	369.8
52.8 vol %			
-187.23°			
1.3663	169.7	0.2144	1053.9
0.6310	373.0	0.2078	1061.6
0.2316	989.0	0.2004	1065.3
0.2171	1053.0		
-192.27°			
1.3979	159.8	0.37425	584.1
0.94595	235.5	0.3650	599.0
0.7125	311.5	0.3465	606.6
0.4697	468.4	0.3069	624.0
0.4047	541.8	0.28075	636.0
24.3 vol %			
-183.05°			
4.079	57.7	0.3108	737.6
2.073	114.0	0.3040	754.0
1.0943	215.3	0.3048	752.5
0.4327	534.3	0.2956	756.2
0.3437	669.3	0.2867	758.6
0.3174	728.8	0.2743	762.5
-187.8°			
4.0803	61.1	0.1942	1228.5
0.5666	434.7	0.1928	1228.4
0.3170	766.0	0.1882	1232.7
0.2959	819.6	0.1795	1236.7
0.2011	1186.7		
-192.63°			
4.078	54.6	0.512	427.0
2.072	107.6	0.4923	429.5
1.0942	202.9	0.4444	438.7
0.8446	261.5	0.4324	439.3
0.59615	368.0	0.4212	439.45

v_n = normal volume

t	p	vol.
	condensation	
	74.05 vol%	
-189.62	1052	0.2107
-194.54	597	0.355
-199.38	316	0.538
	52.8 vol%	
-187.23	1053	0.2171
-192.27	599	.365
-196.94	330	.631
	24.3 vol%	
-183.05	1228	0.1942
-187.80	754	.304
-192.63	427	.512

%	t condens.			
	500mm	760mm	1000mm	1500mm
		beginn.		
24.3	-191.37	-187.70	-185.12	-181.01
52.8	-193.75	-190.19	-187.76	-183.83
74.1	-195.94	-192.50	-190.08	-186.23
		end		
0.0	-189.71	-185.90	-183.23	-178.98
10.0	-191.74	-187.91	-185.18	-180.84
31.5	-194.51	-190.76	-188.11	-183.87
65.3	-197.30	-193.75	-191.21	-187.19
82.6	-198.34	-194.86	-192.40	-188.46
99.0	-199.22	-195.81	-193.38	-189.52
100.0	-199.29	-195.88	-193.45	-189.59

% beginn.	p condens.	% end	p condens.
	-188.05°		
24.3	731.8	0.0	602.8
52.8	967.8	10.0	747.5
74.1	1242.0	31.5	1000.5
		65.3	1379.0
		82.6	1562.0
		100.0	1743.0

Holst and Koopmans, 1917

Electrostatic discharge tension for different temperatures (see authors.)

Fedorova, 1939

%	f.t.	m.t.
0	-189.1	-189.1
5	-190.4	-195.0
10	-191.4	-190.0
12	-192.9	-192.2
30	-198.2	-207.2
42	-194.4	-209.5
38.5	-205.2	-209.2
50	-205.2	-210.0
60	-208.2	-210.0
70	-210.1	-210.3
75	-210.3	-210.3
90	-210.1	-210.4
100	-210.1	-210.1

Din, Goldman and Monroe, 1955

Solid solutions, with a minimum f.t. at 82 %

Weber, 1918

vol%	heat conductivity coefficient . 10^7
0°	0°
0	384.9
20.38	417.3
35.87	443.6
61.08	489.6
78.04	523.5
100	566.0

Xenon (Xe) + Krypton (Kr)

Freeman and Halsey, 1956 (fig.)

mol%	p					
	-183°	-177°	-171°	-165°	-159°	-153°
10	12	24.5	45	90	150	220
20	15	33.5	67	120	200	365
30	16.5	40.5	81	150	270	405
40	18	42.5	90	165	300	450
50	18	42.5	90	175	300	500
60	18	42.5	90	175	330	500
70	18	42.5	100	180	365	550
100	20	50.0	120	245	450	900

Halsey and Freeman, 1956

Critical temp. = -183°

Xenon (Xe) + Oxygen (O_2)

von Stackelberg, 1934

b.t.	mol%	p	p_1	p_2
-185.7	79.8	513	1	513
-187.8	82.2	410	-	410
-191.4	86.5	266	-	266
-193.2	88.5	212	-	212

Xenon (Xe) + Nitrogen (N_2)

Ewald, 1955

P	mol%	P	mol%
	-118°		
4.74	89.2	36.6	95.98
4.81	89.3		96.24
4.90	88.6	46.1	96.23
4.90	88.6		96.29
6.92	89.6	48.9	96.07
6.92	91.70		96.00
6.92	91.78	56.6	95.38
9.50	92.86*		95.18
	93.18	70.4	95.62
16.20	95.27		95.41
	95.61	91.3	96.42
26.60	95.68		95.96
	96.70?	111.6	96.72
			96.95

* duplicate analyses on one gas sample.

Krypton (Kr) + Oxygen (O_2)

von Stackelberg, 1934

b.t.	mol%	p	p_1	p_2
-194.0	70.8	162	3.4	159
-194.7	71.5	148	3.0	145
-198.7	79.0	87	1.4	86
-200.0	79.6	72	1.1	70.9

Fastovskii and Petrovskii, 1956

p	mol% L	mol% V	b.t.
1091	6.0	43.2	-156.7
1069	15.4	71.0	-163.2
1014	46.8	92.4	-172.6
1091	70.5	96.2	-175.9
1108	84.0	98.0	-178.0
2219	6.4	40.0	-155.1
2219	7.0	43.6	-155.7
2217	46.0	90.0	-162.9
2200	70.7	95.8	-168.2
2224	84.2	97.2	-169.7
2954	7.3	-	-140.8
3689	6.7	37.9	-136.2
3621	17.8	68.0	-144.0
3687	47.7	90.4	-155.0
3692	70.2	95.5	-160.4
3694	84.5	97.6	-162.2
5164	18.1	66.0	-136.6
5122	47.8	88.0	-149.8
5162	70.4	95.0	-155.2
5164	84.6	97.8	-157.0

Chlorine (Cl) + Bromine (Br)

Lebeau, 1906

%	f.t.	%	f.t.
0	-102.5	72.07	-57
16.66	-99	78.54	-52
19.29	-94	80.00	-49
27.87	-91	82.09	-45
30.76	-89	85.01	-42
39.52	-85	88.16	-37
48.64	-82	90.00	-31
48.90	-80	91.60	-28
57.21	-75	92.00	-27
59.73	-70	93.07	-25
69.29	-58	94.07	-22
		100	-7.3

Karsten, 1907

atomes % L	atomes % V	b.t.	atomes % L	atomes % V	b.t.
100	100	58.7	80.5	24.8	27.2
97.6	84.2	52.3	60.75	10.6	12.5
95.9	76.1	51.2	60.6	9.9	7.1
95.6	67.2	47.4	57.6	7.9	4.2
93.0	57.8	42.5	47.9	7.1	-5.3
88.3	47.8	38.1	46.2	-	-6.9
-	46.0	37.0	36.9	5.5	-13.7
84.7	32.1	33.1	0	0	-33.6
82.8	39.2	29.8			

atomes %	f.t.	m.t.	atomes %	f.t.	m.t.
100	-7.3	-	32.4	-70.4	-81.5
98.25	-8.4	-10.4	29.8	-76.9	-
89.9	-15.2	-21.5	18.8	-82.0	-
79.3	-22.9	-40	20.0	-94.5	-77
62.2	-40.6	-55.7	10.6	-97	-87
54.9	-48.4	-65	0	-102	-
49.2	-54.0	-66			

f.t.	atomes % C	atomes % L
-18	92.7	85.4
-34.2	80.6	70.2
-33.3	82.5	70.6

Chlorine (Cl) + Iodine (I)

Stortenbeker, 1892

atom %	f.t.	atom %	f.t.
59.1	10	48.68-48.66	26
56.7	15	47.4	25
54.3	20	47.6	24.8
52.0	24	46.3	23.5
51.0-50.7	26	45.7	22.7
50.0	27.2		

Stortenbeker, 1889

$L + V + C_1 + C_2$

mol% (I_2) L	mol% (I_2) V	t	p	solid phase
60.2	52.1	7.9	11	$I_2 + ClI\alpha$
45.7	36.4	22.7	42	$ClI\alpha + Cl_3I$
-	-	-102	above 760	$Cl_3I + Cl_2$

$L + V + I_2$

mol% (L)	t	p	mol% (L)	t	p
59.2	5	-	69.0	40	43
60.2	7.9	11	71.4	50	63
60.6	10	-	78.1	70	-
61.0	20	15	90.9	100	-
-	25	20	100.0	114.3 f.t.	91
67.1	30	25			

$L + V + ClI\alpha$

mol% L	mol% V	t	p
60.2	52.1	7.9	11
59.2	-	10	12
-	-	13.5	13.5
56.8	51.8	15	16
54.3	-	20	22
-	-	22.5	24.5
50.0	49.0	27.2 f.t.	39
-	-	26	41
47.4	40.8	25	41.5
45.7	36.4	22.7	42

$L + V + ClI\beta$ mol% L	t	$V + I_2 + ClI\alpha$ t	p	$V + ClI\alpha + Cl_3I$ t	p
58.1	0.9	5	9	9.7	16
54.3	7.0	7.9	11	15.0	24
50.0	13.9 f.t.			19.0	32
47.6	12.0			20.0	36
				22.7	42

L + V + Cl_3I

t	p	mol% L	mol% V	t	% (L)
20	-	46.1	-	101	54.36
22.7	42	45.7	36.4	94	23.6
25	49.5	-	-	75	7.3
30	72	44.21	29.8	60.5	3.5
40	147	42.2	19.2	42.5	1.6
50	296	-	-	30	0.4
60	571	39.2	12.5	102	0
64.1	773	-	-		
70.1	1183	-	-		
73.6	-	37.6	10.3		
78.7	2294	-	-		
85.3	3549	-	-		
89	-	33.1	-		
90.4	5190	-	-		
95.4	8137	-	-		
96	-	29.2	-		
100.5	11707	-	-		
101	16 atm.	25	-		

I + Cl_2 + V

mol%	p 10°	20°	25°	27.5°	30°	40°
52.6	14	22.5	31	-	40	-
50.3	-	24	-	36.5	42.5	-
49.8	13	25	-	-	45	72
46.5	-	-	43.5	51	-	-

mol%	p 50°	60°	70°	80.3°	90.4°	96.6°
52.6	-	-	-	-	-	-
50.3	-	-	-	-	-	-
49.8	119	191	299	454	660	808
46.5	-	-	-	-	-	-

mol% L	mol% V 30°	64°	80°
59.24	52.00	-	-
56.65	51.78	-	-
51.09	50.74	-	-
50.00	48.94	-	47.87
45.43	-	31.25	-
45.36	35.21	-	-
42.25	29.76	-	-
38.61	-	11.38	-

Karsten, 1907

%	b.t.	%	b.t.
100	184	52.24	103.5
90.7	149.4	51.35	100.9
83.16	132.5	51.56	100.7
76.95	120.5	50.37	98.0
76.43	120.8	50.03	97.4
69.06	114.7	48.71	89.2
69.77	114.2	48.76	84.7
67.06	113.8	47.30	81
60.85	111.8	45.70	75.5
54.26	107.0	45.20	74
52.40	104.3	38.80	73.5
52.39	103.9		

% L	% V	b.t.	% L	% V	b.t.
92.0	61.76	153	50.83	50.0	98.5
90.9	58.96	148.5	49.98	43.3	95.5
66.6	53.0	114	49.30	24.2	85.5
56.96	52.7	107			

Chlorine (Cl) + Sulfur (S)

See also the systems : Cl_2 + S_2Cl_2 and
Cl_2 + SCl_2

Aten, 1905

atom %	p -10°	0°	20°	40°	60°	75°
0.0	1400	2780	5030	7740	14140	23900
25.5	480	950	1730	-	-	-
29.9	350	510	970	1680	-	-
32.5	120	260	550	1100	1950	-
34.6	90	190	400	-	-	-
39.8	40	90	200	390	740	1440
49.7	-	-	40	60	100	210

% L	% V	% L	% V
0°			
28.7	4.7	41.6	30.4
34.9	21.6	43.0	32.3
39.9	29.8	45.2	33.3

atom % L	atom % V	b.t.	atom % L	atom % V	b.t.
		740 mm			
11.4	-	-25.0	49.7	47.6	134.6
17.1	0.8	-16.4	50.3	48.0	135.4
26.9	-	-0.6	52.0	49.6	138.4
29.2	5.3	+12.0	54.0	50.1	141.8
30.5	18.0	18.8	56.2	49.2	142.8
32.0	-	32.0	60.2	50.0	146.2
35.6	25.6	50.2	61.6	49.7	146.8
36.0	31.6	51.4	66.4	49.4	150.4
39.2	-	64.8	76.5	49.7	152.8
42.7	-	78.6	90.5	49.9	212
43.9	40.0	83.8	93.7	-	264
48.0	46.7	105.0	96.1	55.5	320
49.2	47.7	132.0	98.9	-	415
49.2	47.6	132.9			
32.2	-	-19	second sample		
39.1	0.8	-6			
43.6	0.9	+5			
47.5	2.2	+35			
48.2	-	+50			

Ruff and Fischer, 1903

% L	% V	% L	% V
	-10°		
29.9	14.8	36.7	21.4
30.4	14.9	38.5	25.6
30.9	14.3	39.65	27.9
31.5	14.76	40.1	-
32.3	15.0	40.7	30.2
33.3	16.7	41.5	31.8
34.9	18.9	52.1	-
	0°		
28.13	5.3	34.5	31.9
29.6	9.1	34.9	32.4
30.7	14.9	35.1	33.1
31.4	18.3	35.6	34.3
32.2	20.7	36.8	-
32.9	25.0	37.6	
33.9	29.7		

%	f.t.	%	f.t.
48.5	-81.5	29.35	-56
47.5	-80.0	26.7	-46.5
46.7	-81.5	21.1	-35
46.2	-83.0	21.0	-32
45.5	-85.0	20.4	-32
40.0	-113	19.8	-34
34.2	-70	15.3	-31.5
33.3	-69	13.4	-32
33.0	-68	11.6	-34
31.7	-64	8.1	-38.5
31.9	-63	9.0	-39
31.6	-62	7.5	-38
30.6	-60		

Aten, 1905

Atom%	f.t.
20.0	-30
33.7	-65
45.3	-90
47.4	-85
48.6	-82

atom %	f.t.	atom %	f.t.
53.1	-16 rhombic	90.2	83.5
55.7	0	94.7	95.6
59.0	+17.9		86.0 monocl.
64.6	36.8	96.9	103.2
72.2	55.2	98.7	110.4
78.7	65.6	100.0	118.8
85.6	77.7		

atom %	f.t.	E	atom %	f.t.	E
4.6	-103	-	24.4	-109	-120
9.7	-108	-	40.1	-93	-120
16.0	-114	-	44.8	-82	-120
19.7	-114	-119			

Beckmann, 1909

%	f.t. heating	f.t. cooling	m.t. cooling	m.t. heating
47.5	-75	-75	-75	-75
45.2	66	84	82	85
43.8	64	87	87	89
42.6	62	95	92	96
40.8	60	105	95	107
39.9	60	136	101	136
38.3	61	135	115	135
36.3	61	118	96	123
33.7	60	115	89	117
31.1	54	78	80	83
31.1	55	78	80	90
30.6	45	72	78	89
28.8	36	66	72	77
26.1	27	50	66	69
23.6	26	41	60	64
19.3	21	36	60	61
18.5	18.5	32	58	61
18.4	18.5	32	60	61
16.5	18	31	62	62
13.0	-19	-31	-64	-66.5

Chlorine (Cl_2) + Sulfur monochloride (S_2Cl_2)

Aronstein and Meihuizen, 1899

% S_2Cl_2	D.b.t.	% S_2Cl_2	D.b.t.
95.736	4.057	88.480	6.945
94.581	4.644	87.030	7.417
93.373	5.184	83.720	8.372
91.690	5.832	82.130	8.860
90.079	6.417		

Ruff and Golla, 1924

% S_2Cl_2	D b.t.	% S_2Cl_2	D b.t.
99.0907	0.85	89.23	5.80
98.1359	1.65	88.50	6.00
97.195	2.40	81.97	8.20
96.239	2.90	69.45	13.00
95.296	3.40	64.10	15.60
92.520	4.97		

Hammick and Zvegintzov, 1928

% (S_2Cl_2)	f.t.	% (S_2Cl_2)	f.t.
92.66	-9	39.27	+70.2
89.37	+2	37.82	71.5
88.19	4	32.50	77.4
86.48	10	26.55	82.4
82.72	21	24.60	83.6
77.50	28.7	21.84	86.8
74.21	35.7	17.55	90.5
71.88	36.8	16.60	92.6
69.32	41.0	14.10	92.5
65.09	45.6	12.03	97.9
62.60	47.6	11.58	96.7
57.36	54.2	10.65	100.8
55.30	56.0	9.47	101.6
55.19	56.2	6.82	101.4
50.31	60.2	2.98	+110.3
48.30	+61.8		
after heating at 100°			
88.19	-30	48.30	+46.4
85.76	-22	39.27	56.8
84.25	-15.5	37.82	59.4
82.72	-11	35.00	62.2
79.68	-6	32.50	65.3
78.09	-3.3	29.55	70.6
75.15	+2.8	26.55	71.5
73.14	8.4	24.60	74.8
70.71	14.5	21.84	79.2
69.32	19	17.55	85.6
65.09	24	14.10	90.8
62.60	28.2	12.03	94.4
59.96	32	11.58	94.9
55.30	39.4	10.65	+97.4
48.80	+46.5		
after heating at 148°			
79.68	-18.5	48.3	36.5
78.00	-14.0	35.0	45.0(mono.)
75.14	-9.5	35.0	53.0(rhom.)
74.21	-8.0	32.5	57.0
73.14	-4.5	26.55	54.8
70.71	-0.7	26.55	68.5
68.90	+1.0	24.60	70.4
67.71	2.3	21.84	73.2
77.85 (?)	5.5	17.55	80.5
62.60	17.0	14.10	80.8(mono.)
62.04	17.5	14.10	85.4(rhom.)
57.36	22.8	12.03	88.4
55.30	27.8	11.58	79.6(mono.)
49.71	34.0	10.65	90.6
48.80	36.2	2.98	109.0
after heating at 178°			
66.85	2.75	42.61	38.0
65.36	5.0	38.69	41.0
62.04	10.75	35.24	42.75
59.04	12.0	31.45	51.5
56.04	18.5	26.55	62.8
53.03	23.5	21.84	70.0
50.22	25.4	14.81	83.8
48.54	28.0	6.89	102.5
47.20	32.2		
after heating at 230 - 235°			
44.7	36.6	29.57	58.6(rhom.)
38.69	44.5	26.94	54.5(mono.)
31.45	53.5	26.94	63.5(rhom.)
29.57	43.0(mono.)	20.87	73.4

Aten, 1905

mol % (S_2Cl_2)	Dv (in cc)	mol % (S_2Cl_2)	Dv (in cc)
0.0°			
11.2	0.25	44.7	0.67
28.7	0.35	54.6	0.59
35.6	0.60	76.6	0.30

Pekar, 1902

t	σ	t	σ
63.14 % S_2Cl_2		100 % S_2Cl_2	
36.86°			
17.7	48.124	15.5	42.364
61.3	42.731	60.9	36.453
100.2	37.613	99.8	31.150

Lowry and Jessup, 1930

mol % S_2Cl_2 in $Cl+S_2Cl_2$	σ
0°	
42.32	38.63
28.86	30.29
16.99	25.43

Chlorine (Cl_2) + Sulfur dichloride (SCl_2)

Lowry and Jessup, 1930

atom %	t	d
mol % (SCl_2) in atom Cl + SCl_2		
63.10	28.25	1.72191
-	33.40	.72191
57.97	13.30	.72191
-	- 1.05	.74294
-	18.30	.72191
-	3.80	.74294
56.32	18.50	.70780
-	8.72	.72191
-	21.50	.70780
54.70	12.90	.70780
54.40	15.70	.70780
-	30.26	.68592
51.50	5.18	.70780
50.00	15.98	.68592
50.00	1.80	.70780
-	15.83	.68592
47.93	11.60	.68592
45.66	6.92	.68592
-	21.78	.66152
41.80	- 0.38	.68592
-	13.83	.66152
41.63	17.40	.65578
-	24.85	.64260
40.27	- 2.90	.68592
-	10.90	.66152
39.91	- 3.60	.68592
-	10.20	.66152
38.13	17.60	.64260
-	26.68	.62638
37.62	16.45	.64260
37.25	7.85	.65578
-	15.10	.64260
35.72	4.85	.65578
-	11.92	.64260
33.87	17.93	.62638
33.57	7.52	.64260
-	16.20	.62638
33.18	7.45	.64260
-	16.05	.62638
-	23.00	.61283
32.96	- 0.40	.65578
-	15.13	.63638
-	22.11	.61283
30.77	16.16	.61283
-	21.98	.60128
28.86	4.83	.62638
-	11.68	.61283
26.69	0.58	.62638
-	7.307.30	.61283
25.84	9.25	.60128
-	18.33	.58230
23.53	- 1.45	.61283
-	4.22	.60128
18.80	17.62	.54364
-	28.10	.52351
18:63	0.20	.58230
-	18.45	.54264
16.29	18.39	.52361
-	28.60	.49980
9.95	2.15	.52351
-	12. 12.09	.49980
-	20.05	.47977
6.17	2.70	.49980
-	10.28	.47977
0.0	2.30	.45980
-	11.80	.43296
0.0	2.60	.45980
0.0	2.62	.45980

atom %	t	σ t°	σ 0°
50.00	16.3	43.43	45.66
47.93	20.2	41.60	-
45.66	15.0	40.48	42.70
41.80	17.1	38.10	40.61
41.63	18.2	38.18	-
40.27	14.6	37.70	39.79
39.91	15.2	37.56	39.75
38.13	15.7	36.84	-
35.72	-	-	37.63
33.18	15.0	34.39	-
32.96	14.5	32.24	36.58
30.77	20.1	31.87	-
26.69	-	-	33.03
25.84	16.0	29.47	32.53
23.53	-	-	30.84
18.80	19.0	24.91	-
18.63	-	-	28.20
16.29	13.0	24.81	26.81
9.95	15.9	21.79	24.31
6.17	16.4	20.44	23.31
0.00	12.9	18.87	21.10
0.00	-	-	21.21
0.00	-	-	21.24

Sulfur dichloride (SCl_2) + Sulfur monochloride (S_2Cl_2)

Whiting, 1952

% (S_2Cl_2)	d	% (S_2Cl_2)	d
15.56°			
0.0	1.6291	52.2	1.6594
6.6	.63345	54.0	.6609
11.4	.6362	56.5	.6625
16.7	.6396	65.9	.6671
23.6	.6434	73.4	.6719
31.9	.6496	75.6	.6730
36.5	.6520	84.4	.67795
37.2	.6509	98.0	.6804
49.55	.6585	100.0	.68603

Next Page

Chlorine (Cl) + Tellurium (Te)

Damiens, 1923

%	f.t.	E	%	f.t.	E
95.24	409	-	73.54	-	233
92.91	375	238.5	72.50	-	227.5
91.02	352	"	70.88	-	230.5
87.78	308	"	71.05	234	200
86.03	285	235	69.49	230	200
85.38	281.5	238.5	68.55	225	201
82.54	270	"	66.63	220	203
82.00	265	236	64.82	215	203.5
80.79	-	234	64.26	214	203.5
79.75	257	238.5	61.43	206	204
79.20	-	236.3	60.50	205	205
-	-	236.1	57.29	207	202.5
74.75	-	231	54.47	208	201
74.10	-	231.5	52.28	211	202
73.82	-	220			

Chlorine (Cl) + Carbon (C)

see Cl_2 + CCl_4 (Carbon tetrachloride)

Chlorine (Cl) + Silicium (Si)

Kordes, 1926

mol % (4+1)	f.t.
0	-102
14	-116 E
100	- 67

Biltz and Meinecke, 1923

mol%	f.t.	E	mol%	f.t.	E
100	-67.5	-	56.0	-84.0	-117
90.4	-70.0	-116	48.1	-87.5	?
83.8	-72.0	"	33.6	-99.0	-117
74.2	-75.0	"	26.7	-105.5	-117
68.8	-77.0	"	19.8	-112.5	-116.5
65.8	-78.0	"	8.4	-110.5	-116.5
59.9	-81.0	"			

Bromine (Br) + Iodine (I)

Kruyt and Helderman, 1918

mol%	f.t.	p	mol%	f.t.	p
		C + L + V			
0.0	-7.5	44	50.5	40.4	48.2
32.5	19	83	51.4	42	45.4
35.9	23	85.8	54.7	44.3	42.7
35.9	25	85	60.4	47.9	54.6
43.6	31	79.5	60.4	50	56.7
47.1	36	64.1	92.4	100	above 200
50.1	40.4	48.2	100.0	112	92

Meerum Terwogt, 1905

mol% L	mol% V	p	mol% L	mol% V	p
	50.2°			92.8°	
25	0	331	50	0	372.0
40	0	191.7	60	18.8	206.7
50	8.23	86.1	70	27.71	160.5
58	37.93	45.7	80	35.71	113.0
100	100	3.5	100	100	30.7

mol% L	mol% V	b.t.	p
0	0	58.7	771.2
5	-	61.2	-
20	2.08	72.7	759.3
47.17	8.25	104.3	756.3
52	27.06	126.0	750.0
55	-	134.9	772.6
60	42.90	145.4	768.8
70	48.47	151.0	770.1
80	50.32	159.4	757.8
90	65.21	173.5	760.5
100	100.00	187.5	771.7

mol%	f.t.	m.t.	mol%	f.t.	m.t.
0	-7.3	-7.3	50	41.0	40
2	-6.9	-7.2	52	42.8	42
5	-6.1	-6.7	53	43.5	42.5
10	-2.8	(-6.2	60	52.0	46.9
15	(2.5)	(-5.0)	70	69.0	-
25	13.8	-	80	83.7	-
40	31.0	26	90	99.0	94.0
45	35.2	32	100	110.6	110.6

t	mol% L	mol% C	t	mol% L	mol% C
-1.2	12.24	22.17	38.0	49.32	50.62
+13.8	25.60	37.69	58.6	-	70.54
22.8	32.89	40.53	68.2	-	75.75

Denisova, 1956

mol%	m.t.	f.t.	mol%	m.t.	f.t.
0	-	-7.3	50	40.8	41.0
5	-7.4	-5.2	55	43.2	46.2
10	-6.4	-2.4	58	43.6	48.8
15	-3.8	+3.2	60	46.6	52.6
20	-1.2	9.4	63	48.6	57.4
25	+2.2	15.0	67	54.4	64.2
30	8.5	22.4	72	62.8	72.6
33	12.8	27.2	80	72.6	89.8
36	15.1	31.2	90	90.4	98.6
40	22.8	36.2	93	100.2	108.6
43	27.2	38.6	98	107.8	111.2
46	32.8	39.7	100	-	114.0

(1+1)

Meerum Terwogt, 1905

mol%	d 50°	d 42°	d 10°	d 0°
30	3.4502	3.4779	-	4.1348
40	.5787	.6060	4.2501	4.2818
50	.7343	.7616	4.4135	4.4157
58	.8239	4.4464	-	-

Plotnikov and Rokotyan, 1913

%	d	%	d
	25°		
0	3.077	32.5	3.447
9.0	3.207	44.4	3.593

%	κ	%	κ
	40.6°		
47.34	1.424	59.48	2.350
54.93	1.926		
	25°		
12.70	0.0032	31.93	0.3150
14.72	.00906	33.32	.3762
16.20	.0162	33.87	.4343
21.92	.0458	35.46	.4723
25.45	.0977	38.19	.6402
26.04	.1144	39.00	.6738
29.00	.1682	40.46	.8570
31.26	.2704	44.50	1.260

Heavens and Cheesman, 1950

mol%	a*	b*	c*
100.0	4.774	7.250	9.772
93.7	.753	.204	.689
85.1	.732	.163	.610
75.1	.715	.096	.485
66.0	.687	.054	.390
62.1	.677	.022	.339

* lattice spacing = cell parameters (in kX)

Bromine (Br) + Sulfur (S)

Ruff and Winterfeld, 1903

%	p	%	p
	20°		
28.62	2.9	16.57	74.0
27.28	6.9	16.34	74.6
26.35	13.1	16.08	74.6
25.47	22.5	13.45	95.4
24.43	27.2	10.72	114.7
22.18	40.9	9.10	126.2
22.09	39.1	8.67	128.4
19.85	54.3	6.37	148.7
16.86	68.6	0	174.5
16.68	73.2		

%	f.t.	%	f.t.
28.62	-46.0	13.56	-37.0
27.57	-47.0	12.94	-32.5
26.49	-48.5	12.91	-35.5
25.38	-51.5	12.28	-30.0
24.29	-53.0	11.69	-27.0
23.26	-56.0	11.13	-25.0
22.28	-57.5	10.57	-24.5
21.29	-58.5	10.08	-23.5
20.38	-59.5	9.63	-21.5
19.49	-59.5	9.08	-21.0
18.62	-56.0	8.67	-19.5
17.08	-52.0	8.19	-19.0
16.31	-48.0	7.85	-18.0
15.60	-46.5	7.54	-16.5
14.92	-42.0	7.25	-15.5
14.24	-39.5	6.97	-15.5
13.65	-34.5		

(1+1)

%	d	%	d
	20°		
28.62	2.6355	8.04	2.9650
19.12	2.7896	0	3.1200

Denisova, 1956

atom % S	f.t.	atom % S	f.t.
0	-7.3	49.00	-43.8
5	9.6	50.00	40.0(1+1)
10.00	13.6	52.00	42.2
15.65	17.4	54.00	46.0 E
18.50	20.6	56.85	42.2
22.00	25.2	58.25	34.0
25.00	28.6	60.00	30.2
28.20	32.8	62.98	21.6
30.00	35.4	65.73	11.5
31.00	38.8	68.21	5.5
34.16	42.8	70.00	+0.2
36.82	48.2	74.20	14.0
38.25	50.5	78.56	27.0
39.20	52.2	83.11	42.8
40.50	55.0 E	88.20	61.1
42.00	52.8	94.00	86.2
44.45	49.8	100.00	+118.0
47.00	-46.2		

Bromine (Br) + Tellurium (Te_2)

Damiens, 1921 and 1923

%	f.t.	E	min.
100	453	-	-
95.40	423	224	-
90.41	396	224	-
84.21	350	224	25
78.63	288	225	28
76.16	255	224.5	34
73.80	241	225	23
71.76	229.5	223.5	11
70.59	222.5	200	8
68.69	218	201	-
66.51	212	200	23
64.00	202	202	56
61.00	205	202	40
54.57	232	201.5	26
51.95	242	199	25.5
46.92	262	200	15
44.69	271	200	13
44.46	272	200	-
42.50	281	200	11
40.27	288	200	4.5
36.11	316	-	-
34.80	321	-	-
34.80	321	-	-
32.52	337.5	-	-
31.18	341	-	-
31.00	343	-	-
28.78	361.5	-	-
28.51	363.5	-	-

(1+2) (2+3) (3+4) (1+1) (4+3) (3+2)

(2+1) (3+1) (4+1)

%	speed of vaporization 2 h. heating		1 h. heating
90.41	0.0657		0.119
78.63	0.1617		0.277
73.80	0.2324		0.385
55.73	0.3835		0.714
44.46	0.4870	(1+2)	0.890
43.80	0.5040		0.910
31.00	0.0290		0.060
28.51	0.0037	(1+4)	-

Bromine (Br_2) + Arsenic tribromide ($AsBr_3$)

Pushin and Makucz, 1938

mol%	f.t.	m.t.	mol%	f.t.	m.t.
100	31	-	58	2	-31
97	30	-38	52.5	-4.5	-31
94	28.5	-36.5	49	-10	-31.5
92.5	27.5	-36	40.5	-20.5	-31.5
87	25	-34.5	33.5	-31.5	-31.5E
77.5	19.5	-35.5	27.5	-27	-35
75.5	16.5	-35	13	-13.5	-33.5
69.5	12.5	-35	0	-7.3	-
64	7.5	-34.5			

Bromine (Br_2) + Antimony tribromide ($SbBr_3$)

Pushin and Makucz, 1938

mol%	f.t.	E	mol%	f.t.	E
100	94	-	45.5	45	-17
96.5	92.3	-	33.5	29	-15.5
92.5	89.5	-20	27.5	16.5	-15.5
86	84	-17	21.5	1	-15.5
83.5	81	-16	20	-7.5	-15.5
73.5	72.5	-15.5	13	-13	-
67.5	69	-18	6	-10	-
56	57.5	-17	0	-7.3	-

E : 94.5 mol% -15.5°

Plotnikov, 1903 and 1904

%	κ	%	κ	%	κ
		18°			
7.1	0.0014	22.0	0.0880	34.5	0.4600
13.2	.0020	23.2	.1000	35.4	.5500
15.5	.0100	25.1	.1100	36.7	.5700
17.2	.0140	27.0	.1900	37.8	.5700
18.0	.0250	28.8	.2500	38.4	.5800
18.9	.0310	29.0	.2400	38.5	.6500
19.3	.0340	29.4	.2500	40.2	.7700
20.4	.0520	31.0	.3100	41.7	.9100
21.5	.0560	33.7	.3800	47.7	.9800
21.7	.0750				

M	mol. cond.	M	mol. cond.
	18°		
3.98	0.0245	2.25	0.0083
3.21	.0183	2.09	.0054
3.14	.0182	1.81	.0032
2.81	.0135	1.61	.0021
2.44	.0100	1.09	.0020
2.39	.0100		

Iodine (I) + Sulfur (S)

Smith and Carton, 1907

%	f.t.	%	f.t.
100.0	114.5	50.0	66.4
94.1	108.8	48.4	68.3
88.8	103.2	46.6	70.4
84.2	98.0	42.8	74.2
80.0	93.3	38.5	78.6
76.2	89.8	33.3	84.3
72.7	86.7	27.3	89.8
69.6	84.0	23.8	92.6
61.5	75.1	20.0	96.2
57.1	71.0	15.7	99.6
55.2	69.3	11.1	103.8
53.3	67.0	5.9	108.4
51.6	65.9	0.0	113.6

Ephraim, 1908

%	f.t.	min.(E)	%	f.t.	min.(E)
0	112.8	-	35.2	82.1	15.25
2.8	111.2	-	36.6	80.3	15.25
4.2	108.6	-	37.4	79.0	15.50
6.1	107.5	-	41.1	74.0	15.80
8.4	105.0	-	44.5	71.5	16.00
10.7	103.0	3.0	48.5	-	16.50
13.2	101.2	5.5	52.3	-	17.00
15.3	100.0	8.25	55.7	67.2	15.25
17.0	99.1	9.0	63.4	74.3	13.25
19.5	96.2	9.75	65.4	77.0	12.50
21.4	94.2	11.75	70.3	80.4	10.25
23.2	92.5	12.5	75.2	86.0	8.0
25.1	91.6	13.0	78.8	89.7	6.0
27.1	89.2	13.25	87.3	97.9	2.5
30.8	-	14.0	100.0	115.7	-

E : 65.6°

Olivari, 1908

%	f.t.	E	%	f.t.	E
0	113.9	-	42.61	100.4	13.3
10.75	110.7	-	45.87	98.6	-
15.24	109.6	-	48.80	96.9	-
17.67	109.4	4	50.58	96.0	-
19.98	108.4	-	51.50	94.9	-
27.24	106.2	8.15	53.20	93.9	-
30.93	104.9	-	54.93	92.6	27.0
34.55	103.7	-	57.20	91.2	-
39.41	101.9	-	59.50	89.2	-

%	d	%	d
	24°		
21.51	3.831	41.48	3.152
25.74	.674	44.68	3.065
29.36	.521	50.22	2.941
32.30	.448	59.58	2.755
34.30	.374	71.50	2.491

Denisova, 1956

atom %	f.t.	atom %	f.t.
100.0	118.0	59.65	89.0
98.7	112.4	57.20	91.6
96.32	102.6	54.89	92.6
94.42	96.6	53.22	93.8
92.86	91.4	52.00	95.0
91.33	88.2	48.80	96.8
88.64	82.6	45.80	98.2
86.32	74.6	41.55	100.2
84.20	71.2	39.00	102.0
82.50	68.0	34.90	103.6
82.00	66.2	30.71	105.0
80.00	65.0 E	27.18	106.2
77.00	70.0	20.00	108.2
75.00	74.6	11.00	111.0
71.77	78.0	5.00	112.8
67.97	83.6	0.00	114.0
62.75	87.2		

Iodine (I) + Selenium (Se)

Pellini and Pedrina, 1908

%	f.t.	E	%	f.t.	E
0	113	-	55	73	58
2	109	58	60	93	58
10	100	57.5	70	123.5	58
17.2	93	53	80	157	58
20	89	58	90	190	57.5
30	80	57.5	98	213	58
40	70	58	100	218.5	-
50	-	58			

Iodine (I) + Tellurium (Te)

Jaeger and Menke, 1911 - 1912

%	f.t.	E	min.	
100	452	-	-	
92.3	405	152	120	
85.3	385	159	180	
81.3	362	161	-	
71.6	306	165	-	
41.8	169	165	840	
35.2	196	151	330	
25.7	250	141	-	(4+1)
24.9	253	139	-	
22.5	259	130	120	
20.6	255	109	-	
20.5	258	110	-	
17.5	256	106	540	
10.0	217	106	840	
3.0	-	106	900	
0.0	113.4	-	-	

Damiens, 1921 and 1923

%	f.t.	tr.t.	min.	E	min.
100	453	-	-	-	-
77.50	355	183.5	13	-	-
70.29	299	183.5	23.4	-	-
65.56	280	183.5	30	-	-
61.92	263	183.5	37.8	-	-
60.13	256	183	-	-	-
57.74	235	183.5	48.3	-	-
54.34	204	183.0	50	-	-
54.04	202	183.5	52	-	-
52.12	195	183.5	-	-	-
51.37	-	183	55	-	-
50.38	192	183.5	55	-	-
48.36	188	183.5	56	-	-
48.00	-	183.5	47	-	-
47.44	187	183	-	-	-
47.16	186.5	183.5	42	-	-
46.77	186	183.5	43	-	-
46.13	184.5	183.5	30	-	-
45.47	184	183.5	22	-	-
45.10	-	-	-	176	10
44.77	180.8	-	-	176.3	15
43.98	179.8	-	-	176.3	16.5
43.09	179	-	-	176.3	24
42.96	178	-	-	176	-
41.91	177.5	-	-	176.3	33
41.24	-	-	-	176.5	49
40.62	177	-	-	176.5	44
39.80	188	-	-	176.5	44.5
38.37	184	-	-	175.5	38.5
37.15	192	-	-	176.5	-
35.87	197.5	-	-	175.5	34
33.45	215	-	-	176.5	32
29.92	235	-	-	176	24
28.57	242	-	-	175	17
20.07	280 (4+1)	-	-	-	-
0	114.2	-	-	-	-

%	tr.t.	E	min.
17.35	-	113.5	-
15.85	184.5	113.5	-
13.75	185	113.5	23
11.97	185	113.5	28
10.25	-	113.5	37.5
9.14	-	113.3	47.5
8.93	-	113.5	49.5
6.76	185.5	113.5	60
6.61	185.5	113.5	70
4.03	-	113.5	73
2.66	-	113.5	84
1.78	-	113.0	80
1.00	-	113.5	85
0.46	-	113.5	85
0.00	184.35	-	-

(1+2) , (2+3) , (3+4) , (1+1) , (5+4) ,

(4+3) , (3+2) , (2+1) , (3+1) , (4+1) , (6+1)

Iodine (I_2) + Phosphorus diiodide (P_2I_4)

Fialkov and Kuzmenko, 1949

mol%	f.t. I	f.t. II	mol%	f.t. I	f.t. II
0	113.3	-	27.1	46.5	33.0
1.1	111.5	-	31.5	38.0	32.8
4.7	104.2	-	34.3	-	33.0
6.4	101.1	-	36.8	36.1	33.0
7.1	99.0	-	39.8	43.0	33.0
8.4	96.0	-	44.5	49.0	33.0
10.2	93.0	-	46.3	52.0	33.0
12.3	87.8	-	50.3	61.0	-
14.3	83.4	32.5	58.5	79.5	61.0
17.7	75.0	-	65.0	91.5	60.2
20.1	69.0	-	67.4	99.0	61.0
21.0	64.5	-			

Iodine (I_2) + Phosphorus triiodide (PI_3)

Plotnikov, Fialkov and Chalii, 1936

wt%	mol%	κ 130°	κ 140°
0	0	0.082	0.080
0.48	0.30	.387	.308
1.87	1.16	.802	.657
3.96	2.48	1.12	.93
7.39	4.69	.47	1.15
9.74	6.24	.54	1.22
19.71	13.15	.23	0.98
0	0	0.136	0.130
0.82	0.51	.516	.434
2.53	1.58	.874	.710
4.26	2.67	1.17	.93
7.38	4.69	.44	1.06
10.71	6.89	.52	1.16
17.81	11.75	.20	0.98
25.38	17.34	0.837	.660
28.20	19.50	0.685	.577
0	0	0.386	0.371
14.81	9.69	1.58	1.24
22.12	14.91	1.21	0.96
38.88	28.16	0.384	0.343
50.91	38.99	0.156	0.148

Iodine (I) + Arsenic (As)

Quercigh, 1912

%	f.t.	E	min.	
0	114.5	-	-	
1	113	70.5	32	
2	110.5	71	73	
5	104.5	71.5	123	
10	89.5	71.5	186	
12	82	72	?	
14	76.5	71.5	?	
16	86.5	71.5	266	
18	94.5	72	208	
20	102	71.5	166	
22	115	71.5	140	
23.5	123	71	89	
25	135.5	-	-	
			(2+1)	(3+1)

Doornbosch, 1911 and Jaeger and Doornbosch, 1912

%	f.t.	E	min.	
			f.t.	m.t.
0	-	-	-	-
15.8	-	117.3	-	150
29.7	122.5	120.5	90	200
32.0	127.8	118.9	60	300
42.1	131.5	119.1	90	290
53.0	133.5	119.7	200	380
62.9	134.9	119.7	290	380
71.8	134.7	120.0	370	480
77.2	132.9	120.1	310	540
77.5	134.6	119.8	400	530
78.2	136.8	119.6	490	485
79.0	136.5	119.3	-	480
79.8	131.1	120.7	-	600
81.0	121.8	121.5	-	1100
81.7	128.9	121.2	-	640
82.8	137.6	114.3	-	160
83.55	140.7	-	-	-
83.7	139.9	71.1	-	70
84.1	134.9	72.9	-	250
86.8	111.4	72.4	-	740
90.6	80.3	72.9	-	1380
91.1	73.7	73.75	-	1500
92.2	76.6	72.75	-	1420
93.8	87.2	72.50	-	1220
97.0	102.6	72.0	-	850
99.7	111.7	-	-	110
100.0	113.3	-	-	-
	(2+1)		(3+1)	

Iodine (I) + Antimony (Sb)

Jaeger and Doornbosch, 1911 and 1912
and Doornbosch, 1912

%	f.t.	m.t.	E	min.
100	632.0	-	-	-
89.5	168.9	166.5	-	130
79.1	-	167.25	-	230
75.0	170.45	169.05	-	330
70.9	170.30	169.9	-	380
58.7	170.15	168.5	-	500
48.6	170.25	168.6	-	580
28.9	168.95	168.45	-	630
24.0	169.7	168.1	-	780
23.4	170.8	170.3	-	-
22.7	-	164.4	78.7	300
20.5	-	158.35	79.75	420
18.8	-	147.0	79.7	740
16.5	-	134.25	80.2	1040
14.2	-	117.7	80.15	1220
12.4	-	96.55	80.2	1500
11.3	-	84.45	80.2	1520
10.7	-	79.85	80.1	1700
7.9	-	82.0	70.15	1480
4.3	-	92.85	80.2	1080
0.9	-	103.75	79.15	720
0.0	113.35	-	77.0	210
			(3+1)	

Quercigh, 1912

%	f.t.	E	min.	
0	114.5	-	-	
2	109	79.5	48	
5	102.5	80	149	
10	88	80	380	
13	83.5	80	?	
15	94.5	79.5	402	
16.66	106	80	339	
19	119.5	80	258	
22	137	80	170	
25	165	-	-	
				(3+1)

Iodine (I) + Antimony pentaiodide (SbI_5)

Plotnikov, Fialkov and Chalii, 1936

wt%	mol%	κ	
		130°	140°
0	0	0.078	0.076
0.97	0.33	.086	.082
4.87	1.69	.112	.108
15.99	5.99	.188	.188
31.58	13.41	.324	.329

Oxygen (O_2) + Ozone (O_3)

Brown, Berger and Hersch, 1955

mol%	p	mol%	p
-195.5°		-183.0°	
	L_1		
97.72	48.8	97.87	251.6
97.07	62.2	93.90	304.8
94.28	105.1	92.68	369.4
94.00	109.0	91.09	440.0
92.00	123.7	90.42	457.5
90.46	138.9	90.37	449.9
89.32	141.4	86.12	557.8
87.84	149.1	84.98	563.2
87.32	153.4	84.77	601.9
		78.68	652.1
		78.42	658.9
		70.03	698.4
		69.90	697.7
		70.00	703.8
	$L_1 + L_2$		
86.16	153.1	64.43	703.8
85.85	158	63.62	699
82.75	152	63.16	716.7
79.20	147	60.64	700.0
73.72	155	50.42	699
8.41	155	27.53	717.4
6.90	155	27.27	719.7
6.83	154	23.63	698.4
		23.63	706.0
		22.06	725.0
		21.24	712.1
	L_2		
5.97	152	18.82	716.7
5.55	158	16.22	705.3
5.48	158	12.92	732.6
5.20	158	10.67	743.3
4.36	158	8.62	741.0
0	160	6.26	740.2
		0	760.0
	-180°		
95.48	342.6	58.06	937.0
90.85	600.8	51.05	960.2
90.56	579.7	46.71	964.4
85.44	744.1	37.44	961.2
75.36	894.8	36.87	977.1
74.85	898.0	36.87	966.5
62.12	938.1	28.31	971.8
58.40	956.0		

t	wt%		mol%	
	L_1	L_2	L_1	L_2
-195.5	90.8	9.0	86.8	6.2
-183	72.4	29.8	63.6	22.1
-180	homogen			

Schumacher, 1953

t	mol%	
	L_1	L_2
-195	5.3	65
-188	10.0	58
-183	18.0	48
-182	-	44.5
-181	24.5	-

C.S.T. = -180°

Birdsall, Jenkins and al., 1955

Virial parameters

$Pv/RT = 1 + \alpha/RTv + \beta/RTv^2 + \gamma/RTv^3$

Units : Atm., liter/mole, °K (0°K = -273.13 °C)

param.	-112°*	-100°	-75°	-50°
		100%		
α/RT	-0.3127366	-0.2755434	-0.2175551	-0.1764762
β/RT	+0.0061452	+0.0064097	+0.0064870	+0.0062582
γ/RT	+0.0000928	+0.0000748	+0.0000499	+0.0000349
		80%		
α/RT	-0.2534684	-0.2232429	-0.1758738	-0.1421109
β/RT	+0.0052347	+0.0053511	+0.0052874	+0.0050349
γ/RT	+0.0000550	+0.0000450	+0.0000301	+0.0000210
		60%		
α/RT	-0.2003611	-0.1763348	-0.1384420	-0.1112323
β/RT	+0.0043690	+0.0043825	+0.0042301	+0.0039755
γ/RT	+0.0000312	+0.0000252	+0.0000168	+0.0000118
		40%		
α/RT	-0.1534149	-0.1348190	-0.1052596	-0.0838405
β/RT	+0.0035619	+0.0035100	+0.0033117	+0.0030718
γ/RT	+0.0000157	+0.0000127	+0.0000084	+0.0000059
		20%		
α/RT	-0.1126296	-0.0986956	-0.0763267	-0.0599354
β/RT	+0.0028241	+0.0027375	+0.0025270	+0.0023141
γ/RT	+0.0000068	+0.0000054	+0.0000036	+0.0000025
		0%		
α/RT	-0.0780054	-0.0679646	-0.0516433	-0.0395170
β/RT	+0.0021641	+0.0020667	+0.0018697	+0.0016920
γ/RT	+0.0000022	+0.0000018	+0.0000012	+0.0000008

* degrees centigrade.

param.	-25°	-12.1°	0°	+25°
		100%		
α/RT	-0.1458513	-0.1329023	-0.1221203	-0.1031704
β/RT	+0.0059150	+0.0057204	+0.0055397	+0.0051682
γ/RT	+0.0000254	+0.0000218	+0.0000191	+0.0000146
		80%		
α/RT	-0.1168143	-0.1060837	-0.0971324	-0.0813636
β/RT	+0.0047203	+0.0045525	+0.0043965	+0.0040854
γ/RT	+0.0000153	+0.0000131	+0.0000115	+0.0000088
		60%		
α/RT	-0.0907240	-0.0819912	-0.0746909	-0.0617952
β/RT	+0.0036964	+0.0035538	+0.0034235	+0.0031685
γ/RT	+0.0000085	+0.0000073	+0.0000064	+0.0000049
		40%		
α/RT	-0.0675804	-0.0606244	-0.0547956	-0.0444653
β/RT	+0.0028324	+0.0027145	+0.0026085	+0.0024046
γ/RT	+0.0000043	+0.0000037	+0.0000032	+0.0000025
		20%		
α/RT	-0.0473834	-0.0419848	-0.0374467	-0.0293739
β/RT	+0.0021165	+0.0020222	+0.0019387	+0.0017807
γ/RT	+0.0000018	+0.0000016	+0.0000014	+0.0000011
		0%		
α/RT	-0.0301332	-0.0260709	-0.0226440	-0.0165209
β/RT	+0.0015365	+0.0014641	+0.0014009	+0.0012832
γ/RT	+0.0000006	+.0000005	+0.0000005	+0.0000004

param.	50°	75°	100°	125°
		100%		
α/RT	-0.0876722	-0.0747487	-0.0637982	-0.0543941
β/RT	+0.0048159	+0.0044885	+0.0041872	+0.0039111
γ/RT	+0.0000115	+0.0000092	+0.0000075	+0.0000062
		80%		
α/RT	-0.0684317	-0.0576236	-0.0484481	-0.0405557
β/RT	+0.0037956	+0.0035292	+0.0032860	+0.0030645
γ/RT	+0.0000069	+0.0000055	+0.0000045	+0.0000037
		60%		
α/RT	-0.0511858	-0.0422955	-0.0347315	-0.0282133
β/RT	+0.0029348	+0.0027225	+0.0025303	+0.0023562
γ/RT	+0.0000039	+0.0000041	+0.0000025	+0.0000021
		40%		
α/RT	-0.0359347	-0.0287644	-0.0226484	-0.0173667
β/RT	+0.0022208	+0.0020557	+0.0019075	+0.0017741
γ/RT	+0.0000019	+0.0000016	+0.0000013	+0.0000010
		20%		
α/RT	-0.0226783	-0.0170303	-0.0121987	-0.0080160
β/RT	+0.0016405	+0.0015160	+0.0014051	+0.0013060
γ/RT	+0.0000008	+0.0000007	+0.0000005	+0.0000004
		0%		
α/RT	-0.0114666	-0.0070933	-0.0033824	-0.0001611
β/RT	+0.0011803	+0.0010901	+0.0010104	+0.0009396
γ/RT	+0.0000003	+0.0000002	+0.0000002	+0.0000001

Jenkins and Di Paolo, 1956

%	t	d
100	-182.9	1.5727
	-185.6	.5839
	-195.6	.6130
96.8	-183.0	.5489
92.4	-195.7	.5724
91.7	-195.8	.5678
88.6	-183.1	.5086
86.6	-182.9	.5050
79.4	-183.0	.4596
24.1	-183.1	.2234

mol%	η
-183.0°	
0	200
10	240
18	280
18 - 68	$L_1 + L_2$
70	800
80	1000
90	1300
100	1540

Oxygen (O_2) + Nitrogen (N_2)

Inglis and Coates, 1906

C_2*	p_2	C_1	p_1
	-198.33°		
0.0	-	122.3	100.0
5.6	34.5	114.0	95.5
7.7	47.5	111.1	93.5
11.9	72.7	105.1	90.0
17.1	104.5	97.6	85.5
21.3	129.5	91.3	81.0
25.7	155.7	85.0	77.0
30.2	182.5	78.3	72.5
32.8	197.9	74.5	69.9
36.5	218.6	69.1	66.4
40.2	242.0	63.7	61.7
42.5	255.4	60.3	59.6
45.8	274.6	55.5	55.9
48.9	293.3	50.9	53.4
52.2	314.3	45.9	48.7
53.0	318.8	44.9	47.7
57.4	347.9	38.2	42.1
61.6	374.6	32.1	36.6
66.1	405.0	25.3	30.5
69.2	427.2	20.7	25.8
72.6	450.7	15.7	20.3
75.9	475.8	10.7	14.2
79.2	500.8	5.8	8.2
82.6	528.5	0.5	0.5
83.0	531.0	0.0	-
	-193.96°		
0.0	0.0	120.3	200.0
3.6	37.0	115.3	194.5
11.0	114.3	104.6	181.2
19.8	205.8	91.9	165.7
27.8	284.8	82.0	150.7
38.5	402.2	64.3	127.8
47.1	495.5	51.5	108.5
54.3	577.6	40.5	89.4
63.4	684.7	26.9	65.3
70.2	773.6	16.6	42.4
75.3	845.6	8.7	24.4
80.8	931.0	0.0	0.0

* C_2 = gr.N in liquid C_1 = gr.O in liquid

Trautz and Emert, 1926

t	p	excess pressure (in mm)
15	748	0.02 (to Dalton's law)

Keesom and Tuyn, 1932

P	PV	P	PV
	-120.76°		
53.3	0.2964	44	0.3610
50.8	.3150	42	.3731
50	.3205	40	.3847
48	.3345	38	.3957
46	.3480		

Dodge and Dunbar, 1927

mol % L	mol % V	P	mol % L	mol % V	P
		-196°			
50.85	83.38	0.5965	84.14	95.41	0.8712
		-182.5°			
5.42	17.37	1.174	44.89	72.80	2.302
11.00	30.94	1.360	49.57	75.87	2.401
17.59	43.60	1.551	50.61	76.36	2.467
17.88	44.11	1.559	53.06	78.06	2.501
19.40	46.37	1.586	64.79	85.04	2.799
27.13	56.59	1.808	83.74	93.70	3.262
39.03	68.37	2.145			
		-173.2°			
5.00	13.09	2.729	42.48	66.66	4.760
7.01	18.65	2.903	48.75	71.29	5.043
9.95	24.55	3.022	58.97	78.52	5.623
13.60	31.29	3.256	63.76	81.63	5.841
17.91	38.94	3.452	80.56	90.77	6.640
25.12	49.08	3.845	90.86	95.78	7.180
		-163.11°			
6.52	15.17	6.033	58.08	74.36	10.734
12.66	26.26	6.606	63.09	77.87	11.136
20.17	37.50	7.286	79.82	88.39	12.651
41.69	61.44	9.231	90.45	94.63	13.663
		-153.24°			
12.02	21.88	11.850	55.26	68.46	18.068
19.18	32.37	12.880	62.49	74.15	18.939
30.90	45.96	14.505	79.00	85.86	21.482
41.11	56.22	15.952	88.38	92.11	22.981
		-148.16°			
10.93	20.24	15.531	62.25	71.95	24.298
19.50	30.95	16.857	78.28	83.86	27.349
40.37	53.71	20.450	88.00	90.89	29.332
54.08	-				

Baly, 1900

% L	% V	b.t.	% L	% V	b.t.
100.00	100.00	-195.46	59.55	30.69	-188.5
97.82	91.90	195.0	55.75	27.73	188.0
95.62	84.75	194.5	51.83	24.90	187.5
93.20	78.40	194.0	47.81	22.20	187.0
90.67	72.33	193.5	43.70	19.56	186.5
88.00	66.65	193.0	39.47	17.05	186.0
85.22	61.47	192.5	35.15	14.69	185.5
82.34	56.62	192.0	30.42	12.40	185.0
78.78	52.08	191.5	25.63	10.18	184.6
76.40	47.83	191.0	20.55	8.02	184.0
73.27	44.06	190.5	15.45	5.91	183.5
70.05	40.45	190.0	10.20	3.85	183.0
66.65	37.07	189.5	4.90	1.84	182.5
63.14	33.80	-189.0	0.00	0.00	-182.04

Keesom and Tuyn, 1932

mol% L	mol% V	t	mol% L	mol% V	t
0	0	-164.14	36.25	60	-171.64
4.0	10	-165.18	47.25	70	-173.26
8.6	20	-166.30	60.5	80	-174.99
14.25	30	-167.50	77.4	90	-176.87
20.25	40	-168.78	87.4	95	-177.87
27.5	50	-170.16	100.0	100	-178.95

N.B. The authors give also molar enthalpy and entropy.

Armstrong, Goldstein and Roberts, 1955

P	mol % L	mol % V	P	mol % L	mol % V
		-195.7°			
0.27691	6.32	28.41	0.65199	50.73	82.38
.38793	18.75	56.10	.66096	51.19	82.80
.51037	31.03	69.45	.67928	54.77	84.64
.51022	31.13	69.45	.68718	59.06	85.72
.50950	31.13	69.45	.75479	64.78	88.71
.53891	31.28	72.48	.75271	65.11	88.99
.53755	34.61	72.48	.75813	65.63	89.11
.53499	34.62	72.48	.82861	74.99	92.46
.56543	37.35	74.44	.82865	77.38	93.27
.56364	37.82	74.80	.89492	80.70	94.33
.67729	46.70	81.65	.91829	88.75	96.73
.65792	47.89	80.82	.95303	91.04	97.46
		-203.2°			
0.08695	5.43	34.71	0.28628	65.60	91.14
.12237	15.09	55.10	.30578	71.17	93.07
.15130	23.81	67.99	.33499	79.67	95.21
.20605	36.94	79.21	.35274	84.79	96.75
.22291	43.25	82.46	.34989	87.74	97.13
.26103	discarded	82.70	.33732	90.74	97.95
.24328	49.61	85.28	.36663	90.84	97.29
.27588	60.90	89.82			
		-208.2°			
0.03218	2.99	24.89	0.10433	47.89	86.59
.02978	3.09	24.52	.10686	48.34	87.02
.02876	3.10	24.37	.12261	60.41	88.48
.02876	3.12	24.96	.12266	60.57	90.84
.03013	3.12	24.12	.13079	61.11	90.44
.03086	3.23	25.05	.12916	66.44	92.55
.04741	10.73	53.11	.13675	73.34	95.25
.06866	23.96	73.24	.13533	73.57	93.88
.07013	24.24	73.89	.13457	73.65	94.82
.06712	24.31	74.11	.14168	74.12	95.31
.08055	30.57	78.65	.14108	74.42	95.31
.08124	30.92	78.62	.13793	74.47	95.36
.08225	30.98	78.99	.14371	81.12	96.10
.08345	31.13	79.25	.15558	84.52	96.89
.10025	42.52	86.44	.16359	92.82	98.74
.10554	47.48	84.13	.17028	93.68	98.74

Ruhemann, 1936

%	f.t.	m.t.	%	f.t.	m.t.
0.0	-219.1	-219.1	22.6	-223.1	-223.1
6.0	219.8	221.01	23.6	222.8	223.1
10.3	220.2	222.41	25.0	222.7	223.1
11.75	220.9	222.89	29.6	222.2	223.1
14.0	221.2	223.0	30.7	221.81	223.1
15.2	221.6	223.2	31.0	221.3	223.1
15.75	221.31	223.1	50.7	217.8	221.31
18.3	222.1	223.1	58.0	216.11	220.0
19.7	222.8	223.1	77.5	212.9	217.41
20.1	222.51	223.1	90.1	211.6	213.61
20.3	222.2	223.1	100.0	-210.1	-210.1
21.9	-222.7	223.1			

Prikhotko, 1939

%	f.t.	m.t.	%	f.t.	m.t.
0	-219	-	60	-216	-219.5
10	220	-222	70	214	217.5
20	222	222.5	80	212	215.5
30	221	222.5	90	210.5	-213
40	219.5	222	100	-210	-
50	-217.5	-221			

Kuenen, Verschoyle and van Urk, 1923

P	molar volume	P	molar volume
	50 vol%		
	20°		
34.03	0.03112	46.25	0.02277
34.24	.03087	46.41	.02271
37.28	.02838	51.85	.02026
37.55	.02812	51.88	.02025
41.12	.02565	52.35	.02008
41.39	.02548		
	-120.77°		
37.12	0.01080	54.30	0.00533
44.81	.00793		
	-125.97°		
36.57	0.00994	49.95	0.00481
43.23	.00721	56.13	.00322
	-130.90°		
35.65	0.00907	44.35	0.00418
38.38	.00771	45.26	.00345
41.03	.00639	46.73	.00295
43.16	.00513	50.18	.00261
	-132.02°		
41.69	0.00306	43.13	0.00268
42.16	.00284	45.78	.00251
	-132.06°		
35.41	0.00882	42.67	0.00398
37.95	.00749	44.17	.00290
40.33	.00615	52.44	.00239
41.91	.00495		

-132.52°

35.08	0.00886	41.90	0.00404
37.57	.00751	42.13	.00369
39.03	.00670	42.25	.00347
40.34	.00584	42.78	.00303
41.02	.00532	43.38	.00285
41.60	.00458	46.60	.00253

-132.55°

41.84	0.00410	41.93	0.00395
41.89	.00403		

-132.60°

41.60	0.00436	41.92	0.00379
41.62	.00433	41.95	.00372
41.77	.00406	41.97	.00373
41.85	.00392		

-132.64°

41.46	0.00455	41.91	0.00366
41.75	.00399	41.91	.00366
41.89	.00369		

-132.67°

41.40	0.00455	41.89	0.00362
41.61	.00413	41.90	.00358

-133.01°

35.12	0.00867	41.03	0.00421
37.58	.00728	41.08	.00408
39.67	.00594	41.29	.00373
39.92	.00574	41.34	.00358
40.62	.00499	41.46	.00336
40.65	.00527	41.62	.00310
40.73	.00482		

-134.51°

34.52	0.00843	39.01	0.00346
35.89	.00757	39.14	.00318
37.03	.00680	39.22	.00277
37.60	.00624	39.40	.00267
37.98	.00574	39.46	.00263
38.41	.00478	40.15	.00256
38.58	.00442	42.64	.00242
38.80	.00390	44.25	.00237

-135.95°

33.21	0.00860	36.60	0.00382
34.32	.00790	36.90	.00302
34.85	.00733	37.09	.00262
35.21	.00692	37.19	.00246
35.66	.00584	37.56	.00242
35.82	.00521	39.77	.00234
36.14	.00459		

-138.01°

32.02	0.00842	33.65	0.00382
32.31	.00755	33.75	.00355
32.57	.00684	33.84	.00331
32.78	.00621	33.99	.00293
32.98	.00564	34.11	.00263
33.16	.00514	34.16	.00253
33.37	.00457	34.24	.00230
33.54	.00415		

-140.95°

28.99	0.00585	29.85	0.00322
29.41	.00452	30.09	.00227

25 vol%

+20°

28.89	0.03656	42.90	0.02444
32.69	.03225	45.18	.02318
35.91	.02928	48.79	.02144
36.91	.02851	51.68	.02020
40.12	.02618	56.40	.01848

-119.96°

33.93	0.01206	45.88	0.00704
35.00	.01151	48.66	.00608
37.20	.01045	50.64	.00540
39.31	.00956	53.36	.00443
39.55	.00944	55.97	.00355
42.27	.00835	59.13	.00294
45.54	.00715		

-122.47°

33.29	0.01183	48.02	0.00535
35.82	.01055	50.16	.00426
38.60	.00926	52.05	.00327
41.72	.00793	54.15	.00280
45.00	.00661	56.41	.00260

-125.00°

32.71	0.01159	46.04	0.00467
35.59	.01006	46.83	.00359
38.40	.00869	47.51	.00293
41.19	.00737	48.73	.00265
44.28	.00587	50.60	.00248

-125.42°

32.68	0.01149	45.67	0.00440
35.97	.00973	45.93	.00382
39.30	.00813	46.14	.00346
42.54	.00657	46.59	.00294
44.89	.00520	47.95	.00261

-125.53°

45.89	0.00369	45.86	0.00375
45.90	.00345		

-125.60°

45.49	0.00419	45.85	0.00333
45.72	.00366	45.89	.00336
45.81	.00347		

-125.64°

44.89	0.00394	45.75	0.00343
45.36	.00433	45.80	.00328
45.46	.00408	45.83	.00321
45.59	.00378		

-125.73°

45.65	0.00326	46.19	0.00277
45.70	.00307		

-125.75°

44.43	0.00523	45.38	0.00378
45.09	.00453	45.40	.00354
45.12	.00448		

-125.97°

32.53	0.01143	44.91	0.00415
35.93	.00959	45.15	.00361
39.41	.00789	45.43	.00297
42.37	.00641	45.51	.00287
43.68	.00561	46.11	.00267
44.67	.00474	48.83	.00248
44.75	.00460		

-127.99°

32.74	0.01076	41.55	0.00409
35.41	.00926	41.70	.00371
38.10	.00785	41.88	.00318
40.19	.00663	42.04	.00288
40.89	.00609	42.19	.00244
40.95	.00592	42.28	.00242
41.14	.00529	43.17	.00236
41.38	.00462		

Michels, Wassenaar and al., 1954

-25°

P	d (g/l)
6.6779	9.5560
8.6945	12.4661
12.3750	17.8041
17.3426	25.0644
21.7907	31.6178
30.3879	44.4102
39.5086	58.1453
60.9465	90.9878
77.8551	117.1921
100.609	152.4865
123.918	188.0558
147.257	222.4131
154.840	232.2368
181.555	269.650
210.485	305.868
242.367	341.911
283.735	382.983
340.731	430.637
422.122	485.042
552.084	550.287
750.946	620.940
1009.600	686.043

-50°

P	d (g/l)
6.0336	9.6302
7.8494	12.5634
11.1553	17.945
15.6007	25.266
19.5637	31.874
27.1805	44.780
35.1949	58.645
53.7687	91.812
68.1555	118.292
87.2043	153.976
106.358	189.960
125.271	224.743
131.343	235.678
152.730	272.530
175.799	309.174
201.196	345.608
234.257	387.079
280.375	435.111
347.215	489.780
456.254	555.055
627.468	625.527
855.922	690.357

-70°

P	d (g/l)
5.5107	9.6898
7.1627	12.6421
10.1622	18.0586
14.1813	25.429
17.7481	32.084
24.5594	45.081
31.6642	59.050
47.8700	92.485
60.1729	119.193
76.1379	155.206
91.8457	191.547
107.084	226.702
111.907	237.738
128.857	274.987
147.020	312.053
167.043	348.870
193.253	390.764
230.299	439.261
285.150	494.270
376.944	559.674
525.232	629.945
728.347	694.447

-85°

P	d (g/l)
6.6404	12.7016
9.4074	18.1449
13.0991	25.553
16.3642	32.241
22.5564	45.310
28.9620	59.358
43.3392	92.999
54.0281	119.885
67.5949	156.156
80.6333	192.779
93.0323	228.228
96.9083	239.345
110.418	276.924
124.808	314.338
140.614	351.513
161.557	393.799
191.592	442.753
237.142	498.167
315.673	563.776
446.334	633.920
629.558	698.056

-100°

P	d (g/l)
6.1127	12.761
8.6424	18.232
12.0021	25.677
14.9585	32.402
20.5197	45.540
26.2065	59.672
38.7032	93.527
47.7291	120.591
58.8207	157.127
69.1104	194.047
78.5850	229.812
81.4806	241.008
91.4765	278.943
101.971	316.750
113.525	354.310
128.967	397.068
151.752	446.599
187.704	502.587
252.541	568.613
365.147	638.665
527.967	702.355

-115°

P	d (g/l)
7.8671	18.320
10.8893	25.804
13.5280	32.565
18.4426	45.777
23.3938	59.991
33.9449	94.063
41.2412	121.316
49.7704	158.132
57.2139	195.359
63.6908	231.447
65.5925	242.732
71.9972	281.039
78.5659	319.243
85.7375	357.247
95.5369	400.544
110.757	450.787
136.542	507.586
187.224	574.310
281.441	644.497
423.440	707.632

-125°

P	d (g/l)
7.3439	18.379
10.1356	25.889
12.5588	31.381
17.0313	45.936
21.4750	60.209
30.6848	94.430
36.7821	121.813
43.5380	158.820
49.0208	196.259
53.4480	232.573
54.6785	243.921
58.6858	282.479
62.6324	320.960
66.8936	359.264
72.8776	402.939
82.8911	453.723
101.528	511.198
142.243	578.662
223.891	649.174
351.966	711.920

-135°

P	d (g/l)
6.8143	18.438
9.3730	25.975
15.5963	46.096
19.5159	60.427
27.3337	94.804
32.1803	122.323
37.0785	159.528
40.5263	197.185
42.8659	233.725
43.4204	245.136
45.0669	283.953
46.4912	322.692
47.9704	361.288
50.2469	405.363
54.9080	456.707
65.9898	514.945
95.9891	583.383
164.660	654.549
278.754	717.052

-138°

P	d (g/l)
38.4841	208.244
40.8793	282.934
43.2128	395.397
53.5263	507.578

-139°

P	d (g/l)
37.51111	208.350
39.4819	283.089
41.1184	395.627

-141°

P	d (g/l)
33.0458	159.872
35.5622	208.568
36.6080	283.400
37.0609	396.070
43.3220	508.680

-143°

P	d (g/l)
31.6590	160.022
33.1640	208.823
33.6025	293.727
33.9488	396.417
36.6186	509.401

-145°

P	d (g/l)
6.2782	18.498
8.5991	26.061
14.1305	46.259
17.5105	60.652
23.8614	95.192
24.3417	98.424
27.3587	122.853
30.0804	160.201
30.4192	209.119
30.7798	284.014
31.0739	396.740
31.1966	509.986
48.564	588.394
103.270	660.690
203.645	723.231

-146°

P	d (g/l)
23.9680	98.465
28.8070	160.330
29.8216	510.158

-147°

P	d (g/l)
23.4060	98.527
26.9707	160.528
27.2177	209.462
27.4999	284.952
27.7516	397.114
27.8440	510.383

-149°

P	d (g/l)
22.8396	98.593
25.2035	160.711
25.4143	209.657
25.9614	510.608

-150°

P	d (g/l)
22.2591	98.658
23.5107	160.896
23.6817	209.846
23.9080	284.796
24.0713	397.538
24.1666	510.819

-152°

P	d (g/l)
21.2005	98.769
22.2409	284.979

-153°

P	d (g/l)
19.7693	98.919

-155°

P	d (g/l)
7.8122	26.150
12.6253	46.426
15.4301	60.882
18.3934	99.065
19.0216	210.352
19.1681	285.323
19.2806	398.086
19.3453	511.390
39.302	668.159
125.927	730.631

Fuchs, 1918

vol%	Dv	vol%	Dv
	19.5°	716 mm	
0	0	60	1.11
10	+0.37	70	0.89
20	0.79	80	0.61
30	1.07	90	0.34
40	1.21	100	0
50	1.27		

Jackmann, 1906

mol%	diffusion coefficient (cc/sec.)
15°	
50	0.203
53.3	.204

Schmitt, 1909

t	η	t	η	t	η
100%		74.42%		49.21%	
14.0	17.38	14.7	18.12	13.5	18.82
101.1	21.34	100.0	22.13	99.6	22.93
183.0	24.64	183.5	25.69	183.2	26.77
30.76%		0%			
13.4	19.39	16.8	20.23		
98.8	23.64	99.7	24.85		
182.7	27.76	185.8	28.85		

Trautz and Melster, 1930

%	η			
	26.9°	126.9°	226.9°	276.9°
0	20.57	25.68	30.17	32.20
18.64	20.08	24.89	29.20	-
24.08	19.95	24.80	29.09	31.09
58.95	18.94	23.45	27.41	29.32
59.20	18.93	23.42	27.41	29.28
78.22	18.43	22.75	26.58	28.40
100.00	17.81	21.90	25.60	27.27

Liquid and Crystalline State .

Grunmach, 1901

%	d	%	d
	-190.3°		
50.1	0.984	32.4	1.042
36.1	1.028	25.6	.066
34.7	.034	23.55	.074
33.2	.039	23.3	.075

Grunmach, 1901

%	σ	%	σ
	-190.3°		
50.1	11.61	32.4	11.91
36.1	11.89	25.6	12.23
34.7	12.05	23.55	12.51
33.2	11.90	23.3	12.63

Prikhotko, 1939

Absorption spectra in crystal lattice
(triplets w.l.)

70%

layer thikness=0.5 mm		layer thikness=10 mm	
I	2747.5	II	2749.2
	2735.8		2746.1
	2725.1		2738.0
			2735.5
III	2697.8		2727.4
	2686.5		2724.9
	2676.3		
		III	2697.4
IV	2646.5		2695.4
	2637.4		2686.2
	2627.7		2683.8
			2675.6
V	2605.3		
	2594.6	IV	2649.0
	2584.8		2646.3
			2638.1
VI	2565.3		2635.0
	2555.6		2628.3
	2546.1		
VII	2529.3	V	2605.3
	2520.3		2602.6
	2511.3		2594.9
			2585.7
VIII	2498.6		
	2490.2	VI	2565.4
	2481.7		2555.3
			2545.8
IX	2470.0		
	2462.7	VII	2529.0
	2455.9		2489.7
			2479.3
X	2446.8		
	2438.7	IX	2469.5
			2461.5
			2452.2
			2444.7

90% layer thickness=10 mm		95% layer thickness=20 mm	
II	2748.8	II	2747.2
	2737.2		2736.4
	2725.5		2726.8
	2716.9	III	2697.0
III	2698.1		2693.3
	2694.5		2685.0
	2687.1		2682.7
	2684.2		2675.2
	2681.8		2672.9
	2675.8	IV	2643.8
	2671.2		2646.2
IV	2649.4		2636.9
	2646.5		2628.3
	2637.4	V	2605.1
	2628.7		2603.2
	2626.8		2593.8
			2585.4
VI	2565.4	VI	2565.6
	2555.3		2564.6
	2546.4		2555.3
			2547.1
VII	2529.4	VII	2529.0
	2520.4		2520.1
	2512.1		2513.1
VIII	2499.4	VIII	2499.8
	2490.2		2489.6
	2481.0		2481.1
IX	2470.8	IX	2470.8
	2463.2		2462.7
			2455.4
		X	2449.0
			2440.9

Perrier and Onnes, 1914

d	t	χ*	t	χ	t	χ
	760 mm		300 mm		100 mm	
			0%			
1.204	-195.65	259.6	-	-	-	-
.235	-195.65		-202.23	275.4	-	-
.267	-195.65				-208.84	284.9

g*	t	χ	t	χ	t	χ
	760 mm		300 mm		100 mm	
0.7458	-195.65	294.5	-202.23	314.5	-208.84	336.5
.4010	-195.79	336.7	-202.23	359.6	-208.84	390.6
.2304	-195.60	363.8	-202.23	393.0	-208.84	423.59
.1380	-195.65	383.6	-202.23	420.4	-208.84	459.8
.0801	-195.80	395.8	-	-	-208.84	472.0

* g - gr. 0 in 1 cc mixture

* χ - by 1 gr. 0

Dianov-Klokov, 1955

%	extinction coefficient 6290 Å	5769	5325	4773	4472
			-196°		
2	0.409	0.586	0.058	0.198	0.035
0.5(?)	.40	.57	.062	.190	.034
4.8	.38	.545	.059	.193	.028
5.5	.37	.54	.058	.192	.032
12.1	.349	.49	.050	.165	.029
14.7	.30	.422	.045	.144	-
27.5	.22	.30	.030	.105	.023
46.5	.101	.134	.016	.052	.005
57.1	.070	.094	.013	.033	.005
67.9	.040	.054	.006	.021	-
84.7	.009	.015	-	.003	-

%	extinction coefficient 3808	3612	3439	3285
2	0.134	0.218	0.062	0.009
0.5(?)	.127	.197	.061	.014
4.8	.119	.206	.056	.013
5.5	.120	.203	.058	.010
12.1	.105	.170	.056	-
14.7	.093	.150	.045	.007
27.5	.066	.106	.031	-
46.5	.032	.053	.013	.003
57.1	.020	.033	.011	.001
67.9	.006	.018	-	-

Keesom and Guillien, 1936

t	B	t	B	t	B
0%		8.83%		31.85%	
-194.58	20.32	-194.46	26.34	-194.56	20.00
199.08	31.64	198.11	28.38	197.96	21.50
202.36	33.86	201.06	30.25	201.26	22.82
205.61	36.69	204.96	32.80	205.41	24.65
207.41	38.16	206.29	33.77	207.31	25.63
-208.26	38.31	-208.46	35.17	-208.46	26.18
40.4%		44.6%		67.16%	
-195.01	18.12	-195.34	17.14	-195.11	12.82
196.06	18.53	200.96	18.87	196.86	13.30
199.27	19.71	209.44	22.74	198.19	13.72
199.66	19.84	-209.91	23.08	201.50	14.60
202.31	20.96			205.34	15.82
202.76	21.02			207.36	16.33
206.54	22.64			208.61	16.63
207.44	23.30				
-208.61	23.84				
83.81%		92.93%		100%	
-194.71	10.28	-195.79	8.91	-195.62	7.86
197.98	10.96	197.46	9.18	-195.68	7.98
201.21	11.12	202.26	10.13	-197.91	8.17
205.01	12.75	208.14	11.25	-198.16	8.21
206.96	12.99	-209.14	11.37	-200.83	8.68
-208.09	13.24			-202.16	8.87
				-204.37	9.25
				-205.31	9.39
				-207.99	10.00
				-209.31	10.10
				-209.79	10.38

B = Kerr constant. 10^9

Gaume, 1952

%	Verdet's constant.10^2 (mn/gauss/cm)	
	-209°	-191°
0	0.941	0.826
42.1	.764	.667
59.1	.682	.601
79.5	.586	.522
83.5	.566	-
92.1	.524	0.474
100.0	.487	.445

Trepp, 1956 (fig.)

%	h	%	h
	-263°		
0	1.1	74	6.8
1	4.0	80	3.9
3	3.0	82	5.0
6	7.2	84	3.8
15	5.4	88	4.1
20	-	92	3.0
30	5.0	94	2.7
40	4.5	98	5.0
49	8.0	100	1.1
60	8.2		

h = hardness, in Kg/mm^2

N.B. There are also curves : hardness-temperature, for different concentrations.

Hammann, 1938

%	Heat conductivity.10^4 (cal/cm/sec.)
	-200°
0	4.98
30	.88
55	.60
68	.76
85	.78
100	.96

Sulfur (S) + Selenium (Se)

Ringer, 1902

%	thermic method m.t.	thermic method f.t.	dilatometric method m.t.	dilatometric method f.t.
0	118.2	119	-	-
10	114	116.5	-	-
20	-	114.2	109	115
30	-	108	-	-
40	-	106	100	105
50	-	130	108	130
56	-	-	125	135
60	-	136	-	-
65	-	-	137	149
70	-	150	-	-
74	-	-	147	160
80	-	170.5	160	185
83.5	-	-	162	190
90	-	188	175	200
100	217.4	217.8	-	-

atom%	tr.t.
2.05	93.5
4.25	91-93
7	83-86
12	76-82

Matsumoto, 1916

%	f.t.	m.t.	E	%	f.t.	m.t.	E
100	207	-	-	50	107	99	-
95	156	152	-	45	106	-	98
90	143	129	-	40	99	-	97
85	122	119	-	30	108	-	98
80	118	-	116	25	109	98	-
75	114	110	-	20	110	100	-
70	112	107	-	15	110	101	-
60	110	102	-	10	110	104	-
55	109	99	-	0	107	-	-

Merwin and Larsen, 1912

% amorphous	n Li	n Na	% amorphous	n Li	n Na
0.0	1.978	1.998	57.0	2.200	2.248
9.0	2.000	2.022	64.0	.250	.307
17.6	.025	.050	70.0	.300	.365
25.0	.050	.078	75.0	.350	.423
31.8	.075	.107	80.0	.400	.490
37.5	.100	.134	87.7	.500	.624
43.2	.125	.163	93.8	.600	.755
48.2	.150	.193	99.2	.700	.90
53.0	.175	.220	100.0	.716	.92

Sulfur (S) + Tellurium (Te)

Pellini, 1910

atom %	f.t.	E	min.
100	451	-	-
98	441.5	-	-
95	435	-	-
90	431.5	103	90
80	420	105.5	163
70	409	-	187
60	397.5	108	219
50	387.5	109	257
40	368	110.5	298
30	347.5	110	343
25	349	107	383
20	321.5	106.5	414
10	298	108	536
5	212	107	701
2	163	107.5	797
1	-	110	868
0	-	-	-

%	tr.t.
0.232	93.5-94.5
0.833	90 -93
1.178	89 -92

Chikashigé, 1911 and 1912

%	f.t.	E	min	tr.t. I	tr.t. II	tr.t. III
0	112	-	550	400	160	95.6
1	110	-	-	-	155	-
4	109	108	110	-	145	-
5	110	109	160	365-290	143	-
7	-	109	420	-	-	-
10	126	109	360	353-280	141	-
15	-	109	355	-	-	-
20	192	108	355	335-265	140	-
30	225	109	350	335	140	-
40	288	109	300	330	-	-
50	300	109	250	-	-	-
60	322	109	225	-	-	-
70	360	109	170	-	-	-
80	374	107	150	-	-	-
90	403	108	120	-	-	-
95	425	90	80	-	-	-
97	434	-	-	-	-	-
99	406-446	-	-	-	-	-
99.5	437-449	-	-	-	-	-
100	455	-	-	-	-	-

Kraus and Johnson, 1928

t	κ(mhos)	t	κ(mhos)
	100%		
480.5	2050 L	450.0	1667
466.0	1910	438.0	1543
457.2	1810		
449.1	1730	404.7	85.54 C
437.0	1570	380.5	75.13
431.8	1510	369.0	67.52
499.9	2016		
483.1	1920		
463.8	1773		
	95 atom%		
477.0	1485 L	427.5	973
469.9	1424		
464.0	1368	428.0	72.72 C
455.0	1280	409.5	49.48
440.3	1122	382.0	42.12
	85 atom%		
474.8	401.1	445.3	198.9
464.0	317.9	436.5	157.0
461.2	300.7	425.5	114.4
455.6	263.2		
	70 atom%		
474.1	10.000	436.0	3.794
457.5	6.611	426.0	3.097
455.0	6.090	420.0	2.642
444.2	4.713		
	50 atom%		
469.2	1230	423.0	459
455.8	960	421.5	455
440.3	641	416.5	403
440.1	662	398.0	305
	30 atom%		
471.6	9.26	415.1	3.42
461.6	7.75	408.2	3.00
451.3	6.54	387.0	2.05
437.8	5.15		
	25 atom%		
448.0	0.740	399.3	0.296
429.2	.518	375.0	0.184
426.0	.502		
	22.5 atom%		
464.1	0.456	406.1	0.162
454.9	.385	404.1	.156
434.1	.275	403.9	.153
425.5	.225	390.1	.119
	20 atom%		
456.1	0.120	418.0	0.0571
450.8	.122	405.0	.0444
430.5	.0748	399.3	.0400
429.0	.0709	397.0	.0367
	15 atom%		
444.0	0.0490	425.5	0.0216
440.1	.0431	418.1	.0266
437.5	.0416	404.6	.0131
435.2	.0378	394.0	.00725
428.0	.0289		

Sulfur (S) + Phosphorus (P)

Helff, 1893

%	f.t.	%	f.t.
100	44.20	94.57	35.80
99.67	43.66	93.35	33.92
99.33	43.10	92.28	32.22
99.31	43.11	91.08	30.21
98.90	42.45	90.92	30.37
98.75	42.22	90.90	30.15
97.56	40.41	90.17	28.65
97.41	40.20	88.60	26.00
96.91	39.44	86.96	24.14
96.83	39.34	86.96	24.24
96.42	38.67	83.34	18.59
96.06	38.18	79.99	13.39
95.88	37.86	79.49	12.85
95.35	37.02	79.47	12.95
95.29	36.98	0	115.00

Boulouch, 1902 and 1906 (fig.)

%	f.t.	m.t.	%	f.t.	m.t.
100	44	-	60	33	-
98	41	27.3	40	64.5	-
96	39	9.8	22.8	88	-
90	29	9.8	15	95	40
77.2	9.8	9.8 E	10	103	65(II)

(4+1)

Giran, 1906

%	f.t.	%	f.t.
100	44	39.2	+296 (2+3)
80	-5	32.5	230 E
66.5	-40 E	27.9	272 (2+5)
56.4	+167 (4+3)	25.0	243 E
50.0	+46 E	13.9	314 (1+6)

Selenium (Se) + Tellurium (Te)

Pellini and Vio, 1906

atom %	m.t.	f.t.	atom %	m.t.	f.t.
0	217	219	49	331	343.4
5	219	225.4	60	-	372.3
10	224	236.9	70	-	399
20	247	255.7	84	-	432.9
30	277.2	287.2	100	-	450
42	316	323			

Selenium (Se) + Phosphorus (P)

Robinson and Scott, 1933

%	f.t. 1*	f.t. 2	f.t. 3
0.0	44.6	44.5	44.2-44.5
15.3	36-39	-4-+6	-4.0-+11
19.4	36-38	-15--8	-19.0- -3
26.8	30-34	-32	-36.0--16
32.7	27.0	-	-
39.0	50	-55	-
36.4	50	-55	-
30.9	-	-42--40	-
44.7	-	+26-+30	-
39.7	-	-10--15	-
28.1	-	-55	-
42.1	-	+54	-
26.0	-	-37	+25
35.0	-	-59	+150 (3+4)

* 1 - after 48 hours heating at 45-50°
2 - after 2 hours heating at 140-150°
3 - after heating 1-6 hours at 160-190°

Selenium (Se) + Antimony (Sb)

Parravano, 1913

mol%	f.t.	tr.t.	min.	E	min.
100	630	-	-	-	-
95	608	572	50	520	30
90	581	572	140	520	40
85	-	571	140	525	50
80	-	572	130	528	60
75	-	571	120	530	80
70	-	571	110	530	100
65	-	570	70	530	140
60	-	-	-	530	180
57.5	550	-	-	528	80
55	565	-	-	525	40
53.5	575	-	-	525	30
52.5	585	-	-	525	20
50	617	-	-	-	-
47.5	598	-	-	-	-
45	575	-	-	218	60
40	522	-	-	219	150
35	502	-	-	218	210
30	490	-	-	218	240
25	465	-	-	218	270
20	440	-	-	221	300
15	410	-	-	220	360
10	380	-	-	218	450
5	330	-	-	218	570
0	-	-	-	217	660

(1+1)

Selenium (Se) + Bismuth (Bi)

Parravano, 1913

%	f.t.	E	min.	tr.t.	$tr.t_2$	min.
100	-	269	285	-	-	-
95	420	271	255	-	-	-
90	482	269	225	-	-	-
85	530	269	180	-	-	-
80	562	268	120	-	-	-
75	600	268	45	-	-	-
73	-	-	-	609	-	-
72.5	-	-	-	613	-	-
71	634	-	-	605	-	-
69	658	-	-	605	-	-
67.5	678	-	-	605	-	-
67	684	-	-	605	-	-
66	694	-	-	605	-	-
65	702	-	-	605	-	-
63	706	-	-	-	-	-
62.5	704	-	-	-	-	-
60	690	-	-	-	610	-
57.5	671	-	-	-	620	30
55	651	218	120	-	622	45
52.5	635	217	150	-	618	75
50	-	217	200	-	615	105
45	-	218	270	-	615	90
40	-	216	340	-	618	75
30	-	217	460	-	622	60
20	-	217	620	-	618	45
10	-	217	780	-	618	30
0	-	217	900	-	-	-

Tellurium (Te) + Arsenic (As)

Pélabon, 1908

atom %	f.t.
0	452
25	329 E
40	362 (3+2)
45	355
100	358

%	f.t.
9.9	440
17.8	425
28.4	388

Arsenic (As) + Phosphorus (P)

Klemm and Falkowski, 1948 (fig.)

atom %	f.t.	m.t.	atom %	f.t.	m.t.
100	600	-	40	770	670
90	650	600	30	795	680
80	665	615	20	800	690
70	675	635	10	810	750
60	710	640	0	815	-
50	740	660			

Arsenic (As) + Antimony (Sb)

Parravano and De Cesaris, 1912

%	f.t.	E	%	f.t.	E
100	631	-	81.41	613	-
94.44	623	619	79.40	615	-
89.87	617	613	73.03	623	613
85.11	615	612	68.63	629	615
83.25	612	-	65.07	633	619
81.79	613	-			

Rolla, 1914

%	f.t.	U -190°	U 0°	U 0°-25°
0	-	0.0701	0.0756	0.0813
70.40	615	.0520	.0541	.0576
83.25	612 E	.0492	.0541	.0557
94.44	623	.0463	.0501	.0522
100	-	:0446	.0480	.0496

Arsenic (As) + Tin (Sn)

Parravano and De Cesaris, 1911 (fig.)

%	f.t.	E
100	230	-
95	420	228
90	480	228
80	540	228
70.41	575 (2+3)	-
61.94	585 (1+1)	575 and 565
51.40	565 (3+2)	-

(1+6), (2+3), (1+1). (4+3), (3+2)

Hydrogen (H_2) + Ammonia (NH_3)

Thomsen, 1911

%	η	%	η
	12.5°		
100	10.05	31.6	11.04
91.8	10.17	20.9	10.89
79.9	10.42	9.8	10.36
66.1	10.68	0.0	9.15
46.4	11.02		

Trautz and Heberling, 1931

%	η			
	20°	100°	200°	250°
100	9.82	12.79	16.46	18.13
90.05	10.04	12.99	16.60	18.25
70.87	10.47	13.33	16.80	18.37
51.77	10.80	13.54	16.76	18.23
29.75	10.87	13.29	16.10	17.37
22.39	10.72	12.99	15.60	16.78
10.82	10.11	12.04	14.32	-
0.00	8.77	10.30	12.11	12.96

Hydrogen (H_2) + Boron trifluoride (BF_3)

Raw and Kyle, 1956

t	T	thermal diffusion*				
		23.0	39.0	52.5	63.1	79.2mol%
120	344.5	0.0816	0.0884	0.0780	0.0646	0.0374
180	368.5	-	-	.0826	-	-
200	375.5	0.0857	0.0940	.0836	0.0669	0.0418
250	393.5	-	-	.0933	-	-
300	410.5	-	-	.0969	-	-
350	425.3	0.0902	0.1047	.0980	0.0849	0.0557

* Thermal diffusion = $D_m/\ln(t/T)$ where D_m is the difference in mole fraction BF_3, t in C and T in °K

Hydrogen (H_2) + Diborane (B_2H_6)

Hu and Mac Wood, 1956

t	mol% L	mol% V	P
-157.67	99.7410	0.06	8.77
160.82	99.7031	.04	10.14
160.73	99.6635	.02	11.45
159.34	99.5565	.02	15.14
158.65	99.3818	.02	21.00
159.70	99.3715	.02	21.41
160.50	99.2499	.02	26.61
160.31	99.1306	.02	34.13
-161.08	99.0333	.01	41.98
-149.33	99.7670	0.14	6.74
149.21	99.5158	.08	14.42
149.24	99.3159	.06	19.98
148.92	99.1531	.06	25.58
148.70	99.8820	.06	34.06
-148.93	98.6446	.06	42.12
-138.22	99.7166	0.24	7.03
138.23	99.4619	.20	13.56
138.03	99.1770	.15	20.59
138.36	98.9243	.16	27.16
138.21	98.6927	.13	33.74
-138.21	98.3871	.12	42.46
-127.25	99.7542	1.66	5.48
127.50	99.5848	1.14	9.13
126.97	99.0693	0.52	20.66
126.61	98.8662	0.47	25.44
126.41	98.5594	0.46	32.44
-127.15	98.1674	0.40	41.91
-114.73	99.8046	7.05	4.04
114.84	99.4894	2.45	9.94
114.86	99.2366	1.77	14.95
115.01	98.9146	1.38	21.23
114.83	98.5459	1.05	28.21
114.81	98.2378	1.00	34.13
-113.90	97.8623	0.85	41.49
-103.61	99.5663	7.21	7.79
103.30	99.1573	3.50	14.60
103.28	98.7567	2.81	21.41
103.23	98.2917	2.20	28.74
103.47	97.8861	1.95	35.82
-103.45	97.5473	1.84	41.28
-91.60	99.5100	14.73	8.31
91.48	99.1079	8.63	14.08
91.74	98.6857	5.65	20.12
91.61	98.2339	4.60	26.88
91.61	97.6438	3.90	35.82
-91.43	97.2806	3.70	41.69

Hydrogen (H_2) + Nitric oxide (NO)

Klemenc and Remi, 1924

%	η	%	η
	0°		
0.00	8.49	45.08	15.95
19.75	14.17	70.45	17.20
22.99	14.52	85.03	17.50
28.35	14.67	100.00	17.97

Hydrogen (H_2) + Nitrous oxide (N_2O)

Ibbs and Hirst, 1929

%	heat cond..10^6	%	heat cond..10^6
	0°		
100.0	38	40.1	170
92.5	48	18.8	272
79.1	71	0.0	404
61.4	107		

Hydrogen (H_2) + Sulfur dioxide (SO_2)

Trautz and Emert, 1926

t	p	excess pressure (in mm)	
13.6	756.6	3.30	Dalton's law
22.8	742.2	3.93	
30.9	748.5	2.67	

Trautz and Weizel, 1925

%	t	η	%	t	η
82.15	17.2	12.95	32.65	158.0	19.37
80.28	70.0	15.35	32.65	199.0	20.98
80.28	92.0	16.35	29.63	19.0	13.83
80.28	93.4	16.38	29.63	45.0	14.94
69.99	65.4	15.36	29.63	70.3	15.99
69.99	90.2	16.40	23.1	69.6	15.49
67.60	121.5	17.85	23.1	92.7	16.43
67.60	159.0	19.42	23.1	99.7	16.62
67.60	199.0	21.18	22.86	15.1	13.34
61.75	70.0	15.75	22.86	17.2	13.44
61.75	95.0	16.88	22.86	43.0	14.49
50.75	15.1	13.41	16.76	19.7	13.14
50.75	51.7	15.03	16.76	47.5	14.19
49.05	201.0	21.27	16.76	125.0	16.88
48.23	65.0	15.66	16.76	158.2	18.00
48.23	92.6	16.85	16.57	54.5	14.49
46.98	123.0	18.10	16.57	72.5	15.13
46.98	159.0	19.60	15.12	158.5	17.46
32.65	124.0	18.01	15.12	197.5	19.47

%	η	%	η
		17°	
100.00	12.59	22.86	13.44
82.15	12.93	16.76	13.04
50.75	13.50	0.00	8.88
29.63	13.70		
		45°	
100.00	13.86	22.86	14.53
80.28	14.25	16.76	14.10
50.75	14.75	0.00	9.45
		70°	
100.00	14.98	29.63	15.96
80.28	15.35	23.06	15.51
69.99	15.57	16.76	15.05
61.75	15.74	16.76	15.00
48.23	15.87	0.00	9.94
		92°	
100.00	15.94	23.06	16.40
80.28	16.33	16.57	16.77
69.99	16.48	16.76	16.73
61.75	16.75	0.00	10.37
48.23	16.82		
		124°	
100.00	17.39	32.65	18.01
67.60	17.94	16.36	16.85
46.98	18.14	0.00	11.02
		159°	
100.00	18.97	16.76	18.03
67.60	19.42	15.12	17.48
46.98	19.60	0.00	11.69
32.65	19.42		
		199°	
100.00	20.71	32.65	20.98
67.60	21.18	15.12	19.53
49.05	21.21	0.00	12.37

Trautz and Narath, 1926

%	η	%	η
		15°	
0	8.83	66.7	10.0$_7$
25	8.86	75	10.78
33.3	9.01	100	12.25
50	9.40		

Argon (A) + Ammonia (NH_3)

Tsiklis and Vasiliev, 1955 (fig.)

P Kg	vol%					
	L_1	L_2	L_1	L_2	L_1	L_2
	100°		90°		80°	
200	52	90	45	93	-	98
500	65	65	50	74	-	88
600	-	-	60	60	35	84
1000	-	-	-	-	58	58

P Kg	vol%	
	L	V
	70°	
200	28	95
750	33	81
1000	38	78
1200	36	75
2000	20	80

P Kg	vol%					
	L_1	L_2	L_1	L_2	L_1	L_2
	80°		90°		100°	
1300	55	55	-	-	-	-
1500	45	67	-	-	-	-
2000	33	73	-	-	-	-
2500	28	77	50	50	-	-
3000	22	79	32	69	50	50
4000	15	83	21	77	24	75
6000	10	87	13	83	15	81
10000	8	88	10	87	11	86
	115°		130°		140°	
4600	48	48	-	-	-	-
5000	29	66	-	-	-	-
5800	22	75	50	50	-	-
6800	20	79	30	70	45	45
8000	15	80	21	75	24	69
10000	13	79	16	75	19	73

Argon (A) + Boron fluoride (BF_3)

Booth and Wilson, 1935

P	dew point	P	dew point
	90 mol %		
15.3	-51.6	50.4	-17.9
19.2	-44.4	50.5	-16.9
25.4	-35.6	54.5	-15.1
30.4	-31.7	54.7	-18.9
30.5	-30.4	55.0	-16.2
38.0	-25.6	58.0	-16.6
39.0	-24.0	58.2	-13.9
40.4	-22.5	59.3	-18.9
43.8	-22.5	60.6	-20.0
46.4	-19.5		
	79.5 mol %		
12.8	-55.2	59.7	-20.5
19.0	-45.8	63.4	-20.0
22.7	-42.4	67.1	-20.0
30.0	-36.6	68.8	-20.5
32.4	-35.4	70.2	-21.8
34.1	-34.6	70.3	-21.8
36.5	-33.1	75.3	-25.2
39.8	-30.8	76.9	-25.8
40.3	-28.3	80.8	-28.7
44.4	-25.7	82.4	-30.8
47.1	-24.4	87.2	-34.3
51.7	-23.0	87.6	-34.4
54.0	-21.9	91.6	-37.3
57.7	-20.6	95.0	-46.0
	70 mol %		
14.1	-54.9	63.8	-24.0
22.7	-51.7	67.4	-23.5
24.3	-45.8	71.6	-23.4
32.0	-38.6	73.6	-23.8
32.9	-34.6	77.2	-25.0
34.3	-33.5	80.3	-28.7
37.4	-31.9	85.4	-31.4
40.4	-33.1	89.5	-35.7
45.7	-29.5	91.6	-38.0
49.0	-28.5	93.0	-38.8
50.4	-28.3	101.8	-46.0
54.1	-26.7	107.6	-56.6
57.8	-25.1	108.3	-61.2
59.8	-24.4	109.0	-66.0
	60 mol %		
12.1	-59.6	70.8	-31.3
14.4	-56.6	80.9	-32.0
18.6	-52.8	91.0	-37.7
22.5	-48.7	94.3	-41.6
33.5	-44.4	98.5	-46.0
34.1	-44.4	101.6	-50.5
38.8	-44.3	103.8	-55.2
41.8	-41.5	105.8	-59.8
51.3	-38.0	107.2	-64.3
62.3	-32.3	107.9	-72.3

50.3 mol %

20.8	-64.6	51.2	-48.6
27.1	-58.7	53.2	-45.9
34.9	-53.4	59.9	-44.2
39.8	-50.6	70.1	-43.0
45.6	-48.6	77.8	-42.9

40.1 mol %

16.3	-70.3	49.4	-50.0
17.4	-67.7	50.9	-49.0
19.1	-64.4	55.2	-48.4
23.2	-61.2	60.0	-47.7
28.7	-59.4	63.7	-46.3
30.8	-57.9	70.7	-45.5
42.1	-53.1	79.5	-44.6
42.8	-51.4	90.7	-46.9
43.0	-50.5	97.4	-48.7
46.7	-49.5		

10 mol %

20.4	-115	58.4	-93.7
40.5	-94.3	59.8	-92.8
48.9	-94.2	59.8	-92.8
50.5	-95.0	62.8	-96.7
50.5	-94.0	63.3	-95.7
50.5	-92.8	67.5	-93.5
54.2	-92.8	68.5	-95.4
54.5	-94.2	70.0	-93.5
58.4	-95.5	79.3	-105.0

crit. const.

%	P	t
100	49.3	-11.8
0	47.7	-120.6

Booth and Wilson, 1935

mol%	f.t.	mol%	f.t.
99.0	-130.6	78.7	-128.5
98.7	131.0	77.1	128.6
98.0	131.2	75.0	128.4
97.5	130.9	74.0	128.2
97.0	130.4	72.0	127.9
95.0	129.2	70.0	131.6
93.5	130.2	68.6	128.3
92.5	130.3	66.7	127.3
91.5	131.5	64.2	129.3
89.1	128.4	63.1	129.9
87.5	128.8	60.1	131.7
86.5	128.8	59.9	133.3
85.0	128.3	57.1	129.1
83.0	128.3	53.9	128.8
81.5	129.3	50.0	128.6
81.5	129.0	42.8	128.4
80.1	129.6	40.6	-131.2
79.8	-129.9		

(1+1) (1+2) (1+3) (1+6) (1+8) (1+16)

Krypton (Kr) + Hydrochloric acid (HCl)

Glockler, Fuller and Roe, 1933

P	PV - P* 0%	26.3mol%	49.2mol%	72.9mol%	100%
			95.5°		
0	1.350	1.350	1.350	1.350	1.350
20	.328	.328	.325	.301	.286
40	.305	.310	.295	.249	.207
60	.283	.277	.248	.189	.112
80	.261	.243	.203	.123	.006
100	.239	.217	.167	.066	0.902
			55.5°		
0	1.203	1.203	1.203	1.203	1.203
20	.170	.184	.164	.144	1.112
40	.137	.144	.115	.073	0.917
60	.104	.097	.052	0.980	.845
80	.072	.054	0.995	.881	.626
100	.038	.018	0.935	.780	-

* PV - P = 1 at P = 0 and t = 0

Retrograde condensation

mol%	t	P
96.2	47.0-47.5	84.0-85.2
87.9	38.5-39.6	87.0-90.0
75.2	23.0-28.0	88.0-95.4
63.4	8.0-16.0	87.0-96.0
48.9	-10.0--1.2	83.5-92.7

Wiberg and Karbe, 1949

mol%	f.t.(L_2)	mol%	f.t.(L_2)
32	-130	41	-127
36	-128	72	-127
37	-129	77	-128
38	-129	100	-128

Xenon (Xe) + Boron fluoride (BF_3)

Wiberg and Karbe, 1949

mol%	f.t. L_1	f.t. L_2	mol%	f.t. L_1	f.t. L_2
0	-112.3	-	76	-114.4	-130.2
27	113.6	-	79	114.0	-
40	113.9	-	82	114.4	-
55	113.8	-129.2	85	-114.5	-130.8
69	-113.8	-129.0	100	-	-128.2

Chlorine (Cl) + Nitrogen dioxide (NO_2)

Mikhaleva and Epstein,1951

t	p	t	p
	98.07 mol%		
-8.75	219.0	+13.5	618.0
-2.50	295.0	16.0	706.0
+1.25	352.0	18.0	784.0
	92.65 mol%		
-14.0	336.5	+3.0	667.5
-6.0	465.0	+6.5	775.5
+0.75	609.5		
	91.40 mol%		
-10.0	448.0	+2.25	703.0
-4.0	554.0	+3.25	726.5
0	645.0	+4.25	756.0
	90.50 mol%		
-16.5	384.5	-1.25	671.5
-8.5	521.0	0	697.5
-2.25	644.0	+2.5	775.5
	87.50 mol%		
-13.5	534.0	-3.5	775.0
-5.5	699.0	-2.25	793.0
	82.6 mol%		
-16.25	599.5	-9.5	804.5
-10.75	750.0		
	65.0 mol%		
-25.5	654.0	-22.75	719.5
-23.5	700.5	-20.25	782.0
	63.60 mol%		
-29.25	594.0	-23.5	730.5
-25.0	688.0	-22.25	761.5
	57.25 mol%		
-35	571.0	-29.75	717.0
-33.25	614.0	-27.0	785.0
	27.50 mol%		
-40.75	481.0	-31.25	721.0
-35.75	603.0	-29.0	785.5

b.t.	mol% L	mol% V	b.t.	mol% L	mol% V
+17.0	98.0	79.6	-13.25	77.6	15.9
+7.5	93.3	47.4	-27.75	37.6	5.0
-3.75	87.3	30.9	-32.25	16.8	1.5

mol%	b.t.	dew point	mol%	b.t.	dew p.
100	+22	+22	40	-28	+5
80	-11	+13	20	-33	-10
60	-22	+8	0	-35	-35

Chlorine (Cl_2) + Sulfurdioxide (SO_2)

Lecat, 1949

%	b.t.
0	-33.6
11	-34.7 Az
100	-9.7

Smits and de Mooy, 1910-11 (fig.)

mol%	f.t.	mol%	f.t.
0	-100.45	50	-87
1.5	102.3 E	60	86
10	93.5	70	84.5
20	88.5	80	82.5
30	88.0	90	80.5
40	-87.5	100	-75.6

van der Goot, 1911 and 1913

mol%	f.t.	E	mol%	f.t.	E
0	-100.9	-	32.4	-88.1	-102.2
0.7	101.1	-101.8	38.1	87.9	102.6
4.7	100.5	-	54.6	86.7	102.6
5.7	99.3	102.3	70.9	84.7	-103.5
9.6	95.3	102.2	83.6	82.7	-
24.1	89.4	102.3	91.4	79.7	-
29.3	-88.6	-102.4	100.0	-75.2	-

mol%	f.t.	E	mol%	f.t.	E
100.0	-75.1	-	50.0	-54.1	-
94.8	77.4	-84.6	47.7	58.4	-109.1
84.5	81.5	-84.5	45.8	61.4	-
75.2	83.7	-	39.0	74.2	-108.9
67.4	76.4	-	30.6	87.7	-109.2
65.2	74.3	-	23.4	100.4	-109.1
60.7	69.5	-84.3	13.0	107.5	-
56.4	64.4	-84.9	10.6	105.1	-109.1
51.8	57.4	-	3.2	102.1	-109.4
50.0	-54.1	-	0.0	-100.9	-

E_1 : 77.8 mol% E_2 : 18.5 mol% (1+1)

$SO_2Cl_2 + SO_2$ $SO_2Cl_2 + Cl_2$

%	f.t.*	E	%	f.t.*	E
0.0	-100.9	-	51.9	-57.8	-
15.3	-107.5	-109.5	59.3	-68.4	-
46.5	-60.5	-	70.2	-80.0	-84.5
48.9	-56.2	-	100.0	-75.1	-

* in presence of a catalyst. (1+1)

Chlorine (Cl) + Nitrosyl chloride (NOCl)

Epstein and Mikhaleva, 1951 (fig.)

b.t.	mol% L	mol% V	b.t.	mol% L	mol% V
-5.5	100	100	-16.5	69.20	41.95
-8.5	92.75	84.80	-22.0	52.00	28.80
-12.0	82.60	67.00	-30.75	22.20	8.70
-14.75	74.60	52.29	-35.0	0.0	0.0

t	p	t	p
	90.25 mol%		
-50.72	94.0	-17.0	531.0
-40.5	168.5	-11.75	670.0
-31.5	278.0	-9.5	749.0
	84.0 mol%		
-49.75	116.5	-17.25	582.0
-41.5	175.0	-11.5	750.0
-32.75	287.0		
	78.25 mol%		
-49.0	137.0	-23.25	496.0
-39.0	231.0	-13.50	752.0
	75.60 mol%		
-51.5	129.0	-23.25	542.0
-40.75	228.5	-15.75	757.0
-32.5	349.0		
	60.50 mol%		
-54.25	140.5	-29.0	511.0
-46.5	221.0	-20.25	695.0
-40.0	307.5	-18.5	770.0
-34.5	397.0		
	51.90 mol%		
-45.5	265.0	-24.25	678.0
-33.7	455.0	-22.0	760.0
	42.0 mol%		
-50.5	237.0	-30.25	601.0
-35.0	485.5	-23.75	788.0
	29.80 mol%		
-47.75	316.0	-29.75	710.0
-39.25	472.0	-27.5	790.0
-34.25	582.0		
	19.25 mol%		
-57.5	205.0	-37.25	563.5
-45.75	384.0	-29.5	806.0
-40.5	494.0		

mol%	b.t.	dew point
100	-5	-5
80	-9	-13
60	-13	-20
40	-19	-27
20	-26	-32
0	-35	-35

Boubnoff and Guye, 1911

%	f.t.	%	f.t.
0.00	-94.4	48.41	-104.2
5.36	95.5	54.55	100.1
12.80	97.0	61.33	95.5
16.15	97.5	63.15	92.5
22.03	100.3	66.28	91.6
27.78	103.3	72.73	85.1
32.08	105.6	76.79	80.8
36.21	106.5	78.21	80.4
37.60	107.7	83.03	77.7
40.54	107.4	87.20	74.1
43.50	107.0	89.65	73.0
44.36	-107.4	100.00	-64.5

Chlorine (Cl) + Phosphorus oxychloride ($POCl_3$)

Rollet and Greff, 1933

%	f.t.		%	f.t.
0	-103		56.7	-55
18	-107.2	E	80	-20
40	- 72.0		100	+1.15
	(1+1)			

Chlorine (Cl) + Ammonium bromide (BrH_4N)

Ephraim, 1917

t	p dissoc.	t	p dissoc.
	(2+1)		
18.5	70	48.5	445
30.0	145	54.0	608
41.5	310	55.8	680

Chlorine (Cl) + Arsenic trichloride ($AsCl_3$)

Biltz and Meinecke, 1923

mol%	f.t.	E	mol%	f.t.	E
100	-16.0	-	56.6	-43	-108
93.8	20.5	-	49.9	50	-
89.0	22.5	-108	48.5	50	107
77.7	29.0	107	37.7	58	106
69.6	34.5	107	34.7	59	106
67.5	35.5	109	23.3	74	105
63.3	40.0	-	17.0	84	106
62.0	40.0	108	10.4	96	108
56.8	-42.5	-108	6.3	-107	-108

Chlorine (Cl) + Boron trichloride (Cl_3B)

Graff, 1933

%	f.t.	E
0	-103.0	-
4.3	-104.2	-
11.4	-106.3	-
12.4	-108.2	-
21.9	-109.3	-136.6
25.8	-111.0	-135.6
33.1	-114.5	-136.4
37.8	-117.3	- -
38.0	-118.0	-135.6
42.2	-118.6	-
46.0	-121.4	-135.3
49.8	-124.3	-135.6
56.4	-129.5	-135.3
57.7	-129.7	-135.6
62.2	-133.5	-135.3
63.7	-134.4	-135.7
66.0	-135.1	-135.3
68.8	-133.0	-135.1
69.3	-132.6	-135.1
71.9	-130.8	-135.6
83.8	-120.5	-135.0
86.9	-118.3	-
95.4	-111.6	-
100.0	-108.8	-

E = -135.4 65.6 %

Fischer, Steunenberg and Vogel, 1954

t	mol% L_1	mol% L_2	t	mol% L_1	mol% L_2
9.0	86.1	4.6	42.2	72.9	-
16.1	83.8	5.2	45.8	70.3	15.2
25.0	82.3	7.1	47.6	67.8	17.2
28.7	-	8.6	49.1	66.4	17.7
31.0	79.4	8.9	49.5	65.8	17.3
35.3	77.8	10.0	50.2	64.4	-
39.4	75.1	-	50.8	-	20.0
39.7	-	12.0	53.9	53.2	-
41.3	-	12.1			

mol%	sat.t.	mol%	sat.t.
60.4	51.8	44.3	54.9
51.6	54.5	28.9	54.7
44.4	54.8	23.1	52.8

mol%	f.t.	m.t.	E
100.00	8.7	8.6	-
97.42	7.4	3.4	-8.8
94.64	6.3	3.6	-8.6
90.20	5.0	3.6	-9.0
86.12	3.8	3.6	-9.0
80.13	3.6	3.5	-9.1
60.39	3.7	-	-9.0
45.92	3.8	-	-8.8
30.45	3.5	-	-8.7
4.78	-	-	-8.8
2.35	-3.7	-	-8.8
0.80	-7.9	-	-8.6
0.00	-7.1	-	-

Bromine (Br) + Bromine trifluoride (BrF_3)

Fischer, Bingle and Vogel, 1956

mol % L	mol % V	p	mol % L	mol % V	p
		75.00°			
100.0	100.0	111	73.1	-	1671
-	77.4	202	66.7	20.6	1727
-	60.3	309	38.3	18.6	1808
97.7	-	514	28.3	19.0	1802
98.5	-	514	9.5	16.9	1817
98.5	49.5	517	6.4	14.6	1799
98.1	-	554	-	13.3	1723
94.5	-	932	-	10.4	1695
96.1	-	932	-	8.7	1630
95.9	32.9	963	1.5	8.4	1561
90.0	27.1	1287	-	2.5	1330
--	24.1	1509	0.0	0.0	1250
		100.00°			
100.0	100.0	309	28.4	21.4	3888
99.3	63.9	789	17.7	20.6	3888
95.52	36.1	1763	6.4	13.6	3757
96.85	-	1763	1.7	10.5	3247
86.2	25.6	2956	0.0	0.0	2483
49.0	23.1	3849			

Bromine (Br) + Iodine trichloride (ICl_3)

Plotnikov and Rokotyan, 1913

%	d
	25°
0	3.0770
9.8	3.0327
20.14	2.9749
27.1	2.9433
29.2	2.9348

%	κ	%	κ
	25°		
18.8	0.073	25.7	0.724
20.5	.105	27.0	0.970
21.5	.170	27.75	1.12
21.8	.214	28.1	1.22
22.35	.278	28.5	1.31
23.3	.340	31.4	2.14
24.7	.542		

Bromine (Br_2) + Phosphorus trichloride (PCl_3)

Fialkov and Kuzmenko, 1951 and 1952

mol %	f.t.	E	mol %	f.t.	E
0	- 7.0	-7.8	18.58	22.2	-
2.15	-	-7.8	19.40	-	15.6
3.57	-	-8.2	19.72	18.5	-
5.48	-	-8.4 E	19.87	-	15.1
8.41	+ 9.0	-	20.21	16.2	15.2
9.13	+17.0	-	20.72	15.5	- E
9.54	23.4	-	21.84	-	15.2
10.04	24.5	(9+1)	22.78	17.5	-
10.84	23.6	-	23.04	18.7	-
13.48	23.0	-	23.61	20.0	-
15.18	-	+16.0	24.38	23.5	15.1
15.71	-	15.0	25.60	26.2	14.2
16.82	23.5	-	28.62	34.5	-
17.27	-	16.5	31.70	36.5	-
17.91	23.2	-	32.87	37.7	(2+1)

mol %	f.t.		mol %	f.t.
34.81	37.3	L_1+L_2	51.78	36.6
35.93	36.9		69.13	36.5
38.90	37.3		76.48	36.8
49.24	36.9			

mol%	d 25°	d 40°	mol%	d 25°	d 40°
0	3.113	3.065	20.03	3.032	2.997
1.31	.125	-	23.49	2.961	2.924
6.24	.138	-	24.71	.921	-
10.45	.142	3.123	27.22	.846	2.809
12.21	.145	.112	28.92	.850	.815
14.31	.128	.096	33.33	.874	.839
17.07	.066	.032			

mol%	η 25°	η 40°	mol%	η 25°	η 40°
0	1305	1131	20.03	13061	7719
1.31	1439	-	23.49	13015	7580
6.24	2345	-	24.71	12624	-
10.45	3458	3269	27.22	11058	6329
12.21	5882	4147	28.92	11014	6371
14.31	8491	5608	33.33	11734	6793
17.07	12722	7508			

mol%	κ 25°	κ 30°	mol%	κ 25°	κ 30°
0	0	0	19.00	635	-
1.43	0	0	20.03	625	700
3.79	268	-	22.17	572	-
4.40	341	-	29.90	512	-
6.33	418	-	31.52	512	-
8.66	478	522	33.60	518	642
9.84	781	-	41.92	543	-
9.90	790	-	50.12	553	-
10.34	801	851	54.40	560	-
11.35	798	-	56.58	561	662
12.90	761	-	65.57	561	662
14.28	741	-	68.62	561	662
16.68	685	-	100.00	0	0

Bromine (Br) + Phosphorus pentachloride (PCl_5)

Plotnikov and Jakubson, 1928 (fig.)

%	f.t.	%	f.t.
5	4	20	24
10	5.5	25	23.5
15	14	22	25

%	κ 25°	%	κ 25°
0.6	0.055	9.9	443
0.9	68.6	11.9	474
1.3	88.6	12.2	513
2.6	113	14.0	548
3.7	115	14.8	548
4.9	159	15.3	571
5.6	184.5	16.1	577
5.65	183	17.45	567
7.2	291	17.6	567
8.2	311	18.4	552
8.45	325	18.5	502
9.7	417	20.1	488

Bromine (Br) + Phosphorus pentabromide (PBr_5)

Plotnikov, 1903 and 1904

%	κ 18°	%	κ 18°
3.31	0.0087	21.1	501
3.4	.0091	23.0	516
4.26	.0099	23.3	534
4.91	.0109	24.6	553
5.48	.0119	28.5	567
13.8	257 sic	29.2	569
13.9	253	30.1	584
14.3	287	31.3	593
15.4	330	34.3	558
16.4	366	36.0	534
18.8	430		

M	mol. cond. 18°	M	mol. cond. 18°
2.38	23	0.995	29
2.18	27	.971	26
2.04	28	.407	0.0029
1.60	32	.382	0.0031
1.47	34	.341	0.0032
1.14	32	.297	0.0034
1.07	31	.230	0.0038

Bromine (Br) + Antimony trichloride ($SbCl_3$)

Plotnikov and Kudra , 1930

%	d	%	d
	25°		
17.07	3.041	39.97	2.960
27.38	3.003	45.03	2.939
35.88	2.974	52.83	2.911

%	κ	%	κ
	25°		
12.27	0.0024	61.63	0.263
21.98	.026	65.63	.370
23.68	.027	66.39	.347
27.00	.034	69.69	.420
28.49	.041	74.12	.585
34.77	.067	79.86	.712
39.97	.092	83.77	.872
43.57	.099	87.20	1.010
45.03	.101	91.16	.280
46.97	.115	96.11	.335
52.83	.171	97.00	.340
54.77	.191	98.07	.300
55.38	.173(?)	98.55	.320
58.58	.215	100.00	0.041

Bromine (Br_2) + Nitric oxide (NO)

Roozeboom, 1885

t	p	t	p
	84.19%		
-10	601	-4	729
-9	617	-3	760
-8	631	-2	791
-5	698	0	889

mol %	p
0°	
50	889
52.5	700
56	631
60	545
63	491
70	401

Bromine (Br) + Nitric dioxide (NO_2)

Perret and Perrot, 1935

%	f.t.	%	f.t.
0	-7.2	60	-14.0
10	-12.5	72	-16.6
20	-12.5	80	-15.2
30	-12.5	90	-13.3
40	-12.5	100	-14.2
50	-12.5		

Bromine (Br) + Sulfur dioxide (SO_2)

van der Goot, 1911 and 1913

mol%	f.t.	E	mol%	f.t.	E
0	-7.1	-	73.1	-15.8	-75.6
3.3	-8.8	-	84.3	-21.7	-75.6
9.3	-10.4	-	90.5	-28.7	-75.5
23.5	-13.3	-75.3	95.6	-45.0	-75.5
30.6	-13.8	-75.5	97.5	-58.0	-75.5
36.5	-13.9	-75.5	99.3	-75.3	-75.6
46.2	-14.0	-75.5	100.0	-75.1	-
61.3	-14.3	-75.5			

E : 1 -75.5° 1 mol%

Bromine (Br) + Ammonium bromide (BrH_4N)

Ephraim, 1917

t	p dissoc.	t	p dissoc.
	(2+1)		
17	20	74.2	300
49.5	105	84.2	475
60.4	159	92.3	670

see also the system : Ammonia + Ammonium bromide

Bromine (Br) + Ammonium iodide (H_4IN)

Ephraim, 1917

t	p dissoc.	t	p dissoc.
	(2+1)		
107	65	144.5	313
124.5	138	154	465
134	204	161	640

Iodine (I_2) + Phosphorus trichloride (PCl_3)

Fialkov and Kuzmenko, 1949

mol%	f.t.	mol%	f.t.
0	113.1	33.0	102.3
3.8	111.5	37.6	102.1
12.1	108.4	58.8	102.1
22.3	104.3		

mol%	κ	mol%	κ
	130°		
0	0.20	24.1	0.13
5.2	.56	29.2	.12
8.1	.43	34.2	.13
12.5	.22		

Iodine (I_2) + Phosphorus pentachloride (PCl_5)

Fialkov and Kuzmenko, 1949

mol%	f.t.	E	mol%	f.t.	E
0	113.2	-	47.8	106.5	
10.1	105.0	-	50.4	112.5	-
18.1	97.5	79.5	52.2	116.5	78.0
28.4	82.0	79.0	52.9	118.2	-
31.8	80.5	79.8	53.1	122.0	79.0
33.9	80.2	-	57.5	136.0	79.3
36.4	90.0	79.5	65.3	163.0	79.5
39.5	92.1	79.9	70.0	187.0	79.5
44.5	101.5	79.3	74.0	198.0	-

mol%	κ	mol%	κ
	130°		
0	0.4	38.1	400.0
4.2	35.0	38.4	410.0
7.4	111.0	40.6	400.0
14.2	252.0	42.9	390.0
26.3	340.0	48.7	400.0
29.0	360.0	50.7	390.0
32.8	410.0	57.0	400.0

Iodine (I_2) + Phosphorus tribromide (PBr_3)

Fialkov and Kuzmenko, 1949

mol%	f.t.	mol%	f.t.
0	113.2	67.9	65.4
12.6	103.7	73.3	58.7
21.3	97.2	77.8	52.2
30.0	93.5	81.7	45.0
37.1	88.8	84.6	36.5
45.2	85.5	86.7	30.0
50.0	80.6	88.7	26.0
57.2	74.7	90.8	17.5
63.4	68.4	96.2	-5.0

Iodine (I_2) + Phosphorus pentabromide (PBr_5)

Kuzmenko and Fialkov, 1949

mol %	f.t.	E
0	113.2	-
4.5	103.8	-
7.1	99.0	-
10.6	93.0	-
14.2	87.0	-
14.9	85.0	-
20.1	81.5	-
22.1	79.5	-
26.2	71.0	-
26.3	70.9	-
28.1	66.5	13.5
28.6	65.5	13.0
30.4	63.0	12.5
33.2	56.0	13.0
36.3	48.0	13.0
37.6	38.5	13.0
40.5	32.0	12.5
41.2	28.2	11.5
45.0	20.2	13.0
49.3	-	13.5
50.4	-	13.5
53.1	17.5	13.5
57.9	39.0	13.0
65.7	94.0	13.5
69.1	105.0	13.5
72.4	107.0	-
74.7	109.5	-
75.8	110.1	-
78.2	108.2	-
80.2	110.0	-
84.3	108.0	79.0
89.0	110.5	-
90.0	109.4	79.2
100.0	103.7	-

mol %	d	mol %	d
		130°	
0	3.91	51.70	3.22
1.93	3.83	57.80	3.19
8.51	3.72	59.20	3.18
17.30	3.56	64.90	3.17
22.20	3.46	66.22	3.15
26.90	3.43	71.05	3.10
32.80	3.36		

mol %	κ	mol %	κ
		130°	
0	0.41	28.3	22.0
5.4	0.76	31.7	280.0
7.1	0.85	41.3	340.0
8.8	1.30	50.3	340.0
11.1	3.30	60.0	320.0
12.8	5.10	72.5	320.0
14.2	8.60	81.4	320.0
20.4	7.60	82.3	320.0
21.9	10.00	83.5	170.0
24.7	13.00	85.5	23.0

Oxygen (O_2) + Nitrous oxide (N_2O)

Fuchs, 1918

vol%	Dv	vol%	Dv
	19.5°	716 mm	
0	0	60	2.70
10	+0.96	70	2.11
20	1.78	80	1.43
30	2.51	90	0.85
40	2.88	100	0
50	3.03		

Oxygen (O_2) + Sulfur dioxide (SO_2)

Trautz and Emert, 1926

t	p	excess pressure (in mm)
13.6	745.0	2.62
22.8	748.2	2.30
30.9	749.0	2.09

Dean and Walls, 1947

-33.2° : 0.16cc O gaseous (at 0° and P_1 = 1)
in 1gr. SO_2

Oxygen (O_2) + Hydrogen sulfide (H_2S)

Baccei, 1899

Absorption spectrum for different lines.

Oxygen (O_2) + Ammonia (NH_3)

Trautz and Heberling, 1931

%	η		
	20°	100°	200°
0	20.23	24.40	29.02
13.51	19.24	23.26	27.73
29.85	17.83	21.70	26.04
47.86	16.04	19.72	23.90
70.79	13.50	16.89	20.85
87.55	11.43	14.59	18.40
100.00	9.82	12.79	16.46

Sulfur (S) + Ammonia (NH_3)

Ruff and Hecht, 1911

%	f.t.	m.t.	E
100	-77.3	-77.9	-
96.99	77.4	78.2	-
92.60	78.3	80.0	-80.0
90	78.7	80.3	80.0
87.84	78.9	81.3	80.0
83.73	79.6	81.3	80.0
83.01	79.1	81.8	80.0
80.49	78.5	81.7	80.0
78.22	78.4	81.8	80.1
75.82	78.3	81.7	80.0
71.16	80.3	83.1	-
67.23	82.2	84.3	-
61.15	84.6	-84.6	-84.6
sat.sol.	-84.6	-	-

Sulfur (S) + Tin tetraiodide (SnI_4)

Ephraim, 1908

%	f.t.	%	f.t.	min.(E)
100	138.2	91.08	125.1	3
97.03	133.3	88.76	115.4	4
95.20	131.8	84.92	103.2	5.5
93.35	128.2	81.56	93.7 E	7

Dorfman and Hildebrand, 1927

mol%	wt%	f.t.
100	100	143.4
47.6	80.2	130
43.2	56.7	104

Sulfur (S) + Vanadium oxytrichloride ($VOCl_3$)

Brown and Snyder, 1925

%	f.t.
96.80	0
94.34	20
88.42	45
76.48	65

Nitrogen (N_2) + Ammonia (NH_3)

Wiebe and Gaddy, 1937

P	a* 0°	50°	75°	90°	100°
50	-	6.63	-	-	-
100	7.90	17.19	21.38	-	20.50
200	13.73	36.24	55.48	-	86.32
300	-	-	-	-	193.16
325	-	-	-	-	235.95
350	-	-	-	165.50	-
400	20.76	65.30	120.66	-	-
500	-	-	-	310.63	-
550	-	-	-	430.8	-
600	24.95	84.78	177.95	-	-
700	-	-	-	-	-
800	28.06	97.20	218.99	-	-
1000	29.69	104.59	241.75	-	-

* a = cc N in 1 gr. NH_3

Trautz and Heberling, 1931

%	η (vapour) 20°	100°	200°	250°
0	17.45	20.85	24.62	26.27
11.11	16.90	20.31	24.08	25.72
29.20	15.85	19.20	22.96	24.60
56.38	13.83	17.10	20.85	22.50
71.47	12.54	15.69	19.46	21.12
88.83	10.92	13.98	17.68	19.39
100.00	9.82	12.79	16.46	18.13

N.B. See also the system :
Hydrogen + Nitrogen

Nitrogen (N_2) + Nitrous oxide (N_2O)

Fuchs, 1918

19.5° and 716 mm

vol %	Dv	vol %	Dv	vol %	Dv
0	0	40	3.16	80	1.79
10	1.07	50	3.06	90	0.97
20	2.14	60	2.81	100	0
30	2.86	70	2.34		

Nitrogen (N_2) + Nitric oxide (NO)

Trautz and Gabriel, 1931

t	η (vapour) vol% 100	69.48	58.37	26.74	0
20	18.82	18.33	18.27	17.78	17.47
100	22.72	22.22	22.09	21.32	20.84

N.B. See also the system :
Oxygen + Nitrogen

Nitrogen (N_2) + Sulfur dioxide (SO_2)

Dean and Walls, 1947

t	mol% L	mol% V	P_1	P_2	P	a*
28.3	98.61	15.4	29.6	5.4	35.0	5.0
28.3	99.49	30.7	10.6	4.7	15.3	1.8
-20.0	99.45	4.2	16.5	0.75	17.2	1.9
-33.2	99.22	1.1	34.6	0.41	35.0	2.8
-33.2	99.67	2.8	17.4	0.47	17.8	1.2
-33.2	-	-	1.0	-	1.0	0.0

* a = cc N (at 0° and P_1 = 1) in 1 gr. SO_2

Trautz and Emert, 1926

t	p	excess pressure (in mm)
13.6	747.2	2.61
22.8	752.0	2.29
30.9	749.7	2.05

Tsiklis, 1947

P Kg	vol % V_1	vol % V_2
	38°	
5000	45.0	64.0
6000	35.0	73.0
7000	32.0	76.0
	40°	
6000	45.0	61.0
7000	36.5	65.0
8000	33.0	68.0
9000	31.5	69.0

P Kg	vol % V_1	vol % L_2
	25°	
1000	2.5	95.0
2000	2.5	90.0
3000	7.0	86.0
4000	30.0	81.5
5000	34.5	78.0
6000	30.5	78.0
7000	28.0	80.0
	35°	
1000	6.0	92.5
2000	5.5	85.0
3000	11.0	69.0
3800	27.5	47.5
	38°	
1000	9.0	91.5
2000	12.0	80.5
3000	21.0	63.0
	40°	
1000	12.0	89.0
1500	15.5	81.5
2000	23.0	74.0
2400	37.5	62.5

LXXIII. TWO INORGANIC COMPOUNDS .

Hydrofluoric acid (HF) + Ammonia (NH_3)

Ruff and Staub, 1933 (fig.)

%	f.t.	E	tr.t.	
29.8	124.6	-	-	(2+1)
29	123	19	-	
27	110	19	-	
26	100	19	-3	
24	65	19	-3	
22.5	19	19	-3	
22	28	19	-3	(3+1)
21	19	19	-3	
20	24	19	-3	
17.7	31	19	-3	(4+1)
16.6	16	16	-3	
14	25	16	-3	
12.3	32	16	-3	(6+1)
11	16	16	-3	

Hydrofluoric acid (HF) + Antimony pentafluoride (SbF_5)

Shair and Schurig, 1951

%	d	%	d
	15.5°		
100.00	3.142	37.40	1.341
85.00	2.568	25.16	1.172
71.60	2.118	0.00	0.981
55.59	1.687		

t	wt% L	wt% V	mol% L	mol% V
142.7	100	100	100	100
127.7	-	97.8	-	80.4
121.3	99.1	95.8	91.0	67.8
120.1	99.3	95.5	92.9	66.2
114.6	98.5	94.2	85.8	60.0
112.0	98.6	91.2	86.7	48.9
110.3	98.5	-	85.8	-
105.0	97.5	87.7	78.3	39.7
100.5	97.0	83.0	74.9	31.1
99.4	95.9	81.4	68.3	28.8
96.2	95.0	77.5	63.8	24.1
95.8	95.2	76.5	64.7	22.5
92.0	94.0	69.6	59.2	17.5
90.8	93.8	66.5	58.2	15.5
87.1	92.5	58.9	53.3	11.8
85.1	91.9	52.3	51.2	9.1
73.3	88.8	34.5	42.4	4.7
64.1	84.6	21.8	33.6	2.6
54.3	78.5	11.6	25.3	1.2
41.4	63.9	3.8	14.1	0.3
30.7	41.8	1.2	6.3	0.2
19.4	0.0	0.0	0.0	0.0

Tsiklis, 1947

P Kg	vol % V_1	V_2
	38°	
5000	45.0	64.0
6000	35.0	73.0
7000	32.0	76.0
	40°	
6000	45.0	61.0
7000	36.5	65.0
8000	33.0	68.0
9000	31.5	69.0

P Kg	vol % V_1	L_2
	25°	
1000	2.5	95.0
2000	2.5	90.0
3000	7.0	86.0
4000	30.0	81.5
5000	34.5	78.0
6000	30.5	78.0
7000	28.0	80.0
	35°	
1000	6.0	92.5
2000	5.5	85.0
3000	11.0	69.0
3800	27.5	47.5
	38°	
1000	9.0	91.5
2000	12.0	80.5
3000	21.0	63.0
	40°	
1000	12.0	89.0
1500	15.5	81.5
2000	23.0	74.0
2400	37.5	62.5

LXXIII. TWO INORGANIC COMPOUNDS .

Hydrofluoric acid (HF) + Ammonia (NH_3)

Ruff and Staub, 1933 (fig.)

%	f.t.	E	tr.t.	
29.8	124.6	-	-	(2+1)
29	123	19	-	
27	110	19	-	
26	100	19	-3	
24	65	19	-3	
22.5	19	19	-3	
22	28	19	-3	(3+1)
21	19	19	-3	
20	24	19	-3	
17.7	31	19	-3	(4+1)
16.6	16	16	-3	
14	25	16	-3	
12.3	32	16	-3	(6+1)
11	16	16	-3	

Hydrofluoric acid (HF) + Antimony pentafluoride (SbF_5)

Shair and Schurig, 1951

%	d	%	d
	15.5°		
100.00	3.142	37.40	1.341
85.00	2.568	25.16	1.172
71.60	2.118	0.00	0.981
55.59	1.687		

t	wt% L	wt% V	mol% L	mol% V
142.7	100	100	100	100
127.7	-	97.8	-	80.4
121.3	99.1	95.8	91.0	67.8
120.1	99.3	95.5	92.9	66.2
114.6	98.5	94.2	85.8	60.0
112.0	98.6	91.2	86.7	48.9
110.3	98.5	-	85.8	-
105.0	97.5	87.7	78.3	39.7
100.5	97.0	83.0	74.9	31.1
99.4	95.9	81.4	68.3	28.8
96.2	95.0	77.5	63.8	24.1
95.8	95.2	76.5	64.7	22.5
92.0	94.0	69.6	59.2	17.5
90.8	93.8	66.5	58.2	15.5
87.1	92.5	58.9	53.3	11.8
85.1	91.9	52.3	51.2	9.1
73.3	88.8	34.5	42.4	4.7
64.1	84.6	21.8	33.6	2.6
54.3	78.5	11.6	25.3	1.2
41.4	63.9	3.8	14.1	0.3
30.7	41.8	1.2	6.3	0.2
19.4	0.0	0.0	0.0	0.0

Hydrofluoric acid (HF) + Bromine pentafluoride (BrF_5)

Rogers, Speirs and Panish, 1956

mol%	f.t.	mol%	f.t.
100	-60.63	40.5	-66.10
94.21	62.69	33.0	66.70
87.1	63.50	18.1	68.40
82.1	63.75	10.7	72.7
79.3	64.04	7.5	78.2
74.2	64.43	5.5	84.5
63.7	64.96	3.3	84.98
50.7	-64.62	1.4	-83.94

E : 4.8 mol% -85.61°

mol%	p	mol%	p
0°		15°	
100	139	100	258
73.2	240	73.2	505
48.8	300	52.5	585
31.0	350	36.7	612
21.4	365	21.4	640
17.9	368	0	664
8.5	380		
0.0	398		

mol%	d	mol%	d
	25°		
0	0.945	37.1	1.97
2.6	1.13	50.2	2.15
23.9	1.79	100	2.465

M*		η	
	-60°	0°	+25°
0	0.00078	0.000884	0.000991
0.43	.0058	.00541	.00599
0.60	-	.00954	.0102
0.83	-	.0188	.018
1.47	0.175	.044	.045
3.20	.500	.206	.190
5.94	.710	.635	.739
8.84	.780	1.080	1.250

M*		κ	
	-60°	0°	+25°
0	0.000884	0.000991	0.00078
0.43	.00541	.00599	.0058
.60	.00954	.0102	-
.83	.0188	.018	-
1.47	.044	.045	0.175
3.20	.206	.190	.500
5.94	.635	.739	.710
8.84	1.080	1.250	.780

* M = molarity of HF

Hydrofluoric acid (HF) + Iodine pentafluoride (IF_5)

Rogers, Speirs and al., 1956

mol%	f.t.	E	mol%	f.t.	E
100	9.43	-	24.50	-20.5	-
98.01	8.11	-	24.30	20.4	-
97.04	8.00	-	18.80	23.2	-83.55
95.49	6.70	-	14.31	25.9	-
92.90	4.46	-	13.53	26.7	-83.59
92.00	4.46	-	9.81	31.2	-83.49
80.40	-0.24	-	7.10	35.1	-83.49
64.40	-6.00	-	4.41	44.8	-83.49
52.30	-10.36	-83.4	3.48	52.0	-
49.13	-10.90	-	1.50	72.9	-83.43
44.81	-12.20	-	0.50	83.49	-83.49
37.13	-15.10		0	-82.90	-
29.81	-17.50	-80--85			

mol%	p	mol%	p
	15°		
100.0	3	40.9	447
86.6	155	29.5	537
75.5	246	17.4	597
63.8	317	0.0	664

mol%	d
25°	
100	3.19
43.1	2.64
10.5	1.72
7.0	1.51
0	0.946

M*	t	κ	M	t	κ
0	25	0.0572	11.3	25	1.104
0	13	.0419	11.3	19.9	.101
0.16	22.7	.0825	11.3	14.5	.103
.16	19.0	.0773	20.6	24.8	6.06
.061	25	.0662	20.6	19.5	6.01
.083	25	.0724	20.6	14.5	5.75
1.47	25	.1127	23.7	25.5	11.5
3.75	25.2	.1818	23.7	19.3	11.3
3.75	20.8	.1706	23.7	14.9	11.1
3.75	16.2	.1578	44	25	7.8
7.28	25	.321	45	25	7.1
			48	25	5.7
			100% (HF)	25	2.9

* M = molarity of HF

Hydrochloric acid (HCl) + Hydrobromic acid (HBr)

Klemenc and Kohl, 1928

t	p				
mol%	100	77.41	67.60	58.26	50.12
-75	551	-	-	-	-
80	416	-	-	661	412
85	309	-	-	517	317
90	222	330	349	401	240
95	154	246	262	308	180
100	105	182	195	236	134
105	69	130	141	176	98
110	45	109	102	130	70
115	30	90	77	93	49
120	19	76	62	66	-
125	12	66	52	45	-
130	-	59	44	30	-
-135	-	-	40	-	-
mol%	48.56	44.06	28.33	16.24	0
-80	-	812	-	-	-
85	542	625	-	-	752
90	412	465	506	537	561
95	307	338	375	392	411
100	225	245	264	284	293
105	161	-	184	200	207
110	113	-	129	138	142
115	80	-	92	99	95
120	58	-	66	73	62
125	43	-	-	-	39
130	32	-	-	-	24
135	24	-	-	-	-

Hydrochloric acid (HCl) + Hydrogen sulfide (H_2S)

Baume and Georgitses, 1912 and 1914

mol%	f.t.	mol%	f.t.
0	-111.6	42.4	-115.3
8.5	115.7	44.8	114.7
13.4	116.3	55.1	111.4
19.3	116.9	60.8	110.4
23.8	117.3	67.4	107.9
28.7	117.4	76.0	100.9
32.2	117.2	86.3	92.3
36.3	116.3	100.0	-82.6
39.0	-115.6		

Hydrochloric acid (HCl) + Diborane (B_2H_6)

Mc Carty, 1949

Az : 70.1 mol% -94°/755 mm

Hydrochloric acid (HCl) + Boron trifluoride (BF_3)

Booth and Martin, 1942

mol %	f.t.	E
0.0	-113.0	-
0.0	-113.2	-
4.7	-116.9	-
7.5	-118.6	-
9.8	-120.2	-
12.6	-121.2	-
14.8	-122.2	-
17.9	-123.1	-
20.3	-124.1	-
22.3	-124.1	-
25.1	-125.0	-
28.5	-125.5	-
30.1	-125.8	-
32.4	-126.2	-
35.0	-126.8	-
37.8	-126.9	-
40.3	-127.8	-
42.5	-127.8	-134.1
45.4	-128.4	-134.1
48.5	-128.5	-133.3
50.0	-129.2	-134.2
50.0	-129.4	-134.2
52.5	-129.4	-134.1
55.1	-130.1	-134.2
56.9	-130.3	-134.1
60.0	-131.2	-134.2
62.2	-131.4	-134.1
64.7	-132.2	-134.2
67.5	-133.3	-134.1
69.8	-133.7	-134.2
72.3	-134.1	-
74.9	-133.9	-
77.8	-133.2	-
79.5	-133.3	-
83.2	-131.9	-
85.0	-131.6	-
89.7	-130.5	-
91.7	-129.8	-
95.3	-128.7	-
100.0	-127.0	-

E : 72.3 mol % -134.15°

Hydrochloric acid (HCl) + Boron trichloride (Cl_3B)

Graff, 1933 (fig.)

%	f.t.	%	f.t.
0	-115.5	60	-127.5
20	-124.5	80	-120
44	-134.5	100	-108.7

Hydrochloric acid (HCl) + Sulfur monochloride (ClS_2)

Terrey and Spong, 1932

%	f.t.	%	f.t.
100	-76.5	62.6	$L_1 + L_2$
96.4	77.0	3.9	-92.0
93.7	77.5	2.2	-110.5
88.2	79.0	0.0	-110.0
80.6	81.0		
74.6	-110.5		

mol%	sat.t.	mol%	sat.t.
62.4	-89.0	32.6	-64.0
61.7	89.0	30.0	64.5
57.0	83.0	28.3	56.0
52.2	73.0	22.4	58.0
52.0	72.0	16.1	56.0
41.7	57.0	7.9	76.0
39.6	64.0	7.6	76.5
38.6	64.0	6.3	-80.5
37.7	-57.0		

Hydrochloric acid (HCl) + Sulfur dioxide (SO_2)

Baume and Pamfil, 1914

mol%	f.t.	mol%	f.t.
100	-72.0	46	-106.8
91.1	76.5	43.8	108.7
85	79.9	40.6	111.2
80.3	83.4	37.7	113.7
74.7	85.6	34	117.0
71.8	88.1	30.6	121.8
67	90.7	25.5	128.5
63.3	93.1	20.7	133.4
60.1	95.5	14.7	127.5
57.6	97.1	8.3	121.4
50.7	-101.3	0	-112.0

Walden and Centnerszwer, 1902

t	κ	t	κ
sat. sol. of HCl at -10°			
25	0.39	155	0.01
55	.26	158	.00
75	.20	145	.01
95	.12	135	.02
115	.07	115	.04
135	.03	95	.10
145	.03	75	.15
150	.02	20	.31

Hydrochloric acid (HCl) + Nitric acid (HNO_3)

Kogan and Nikolaev, 1937

mol%	f.t.	mol%	f.t.
0	-111.5	49.46	-55.4
2.30	112.6	49.91	54.8 (1+1)
2.66	113.2	51.00	55
2.88	113.5	54.16	58
3.39	113.8	54.95	58.6
4.03	115.2	58.81	67
4.35	117	59.08	68.8
4.37	117	59.29	69.4
5.52	119	59.52	71.4
5.57	120	60.24	76
5.81	122 E	60.54	77.8
6.74	117.8	61.41	90 E
6.83	117	63.75	82
6.95	116	64.02	81
7.68	115	65.87	75.6
7.78	114.3	70.69	62.2
8.33	113	70.64	61.4
9.71	110	71.76	59
9.78	110	74.69	57.2
15.54	101.8	75.38	57.5
17.54	99.4 tr.t.	74.52	51.6 (1+3)
18.66	101.4	74.88	57.8
25.00	97.4 (3+1)	77.24	58.6
23.21	86	78.46	58.4
24.82	83	78.83	58.6
24.72	83	81.71	65.9
28.03	76.8	83.89	71.8
31.04	72	84.17	73.8
37.76	63.4	84.46	73.8
40.25	61 (3+2)	83.85	74.2
41.66	64.8	88.15	86.2 E
42.76	75	90.34	75
43.13	77 E	92.51	56.6
43.26	75	92.79	64.8
43.78	67	93.98	60
44.63	63.4	94.43	59.4
47.31	58	94.62	59
47.33	57	95.75	55
48.66	56	96.48	-55
49.02	-55.6		

Hydrobromic acid (HBr) + Hydrogen sulfide (H_2S)

Steele and Bagster, 1910

t	p	t	p
	0 %		
-76	517	-68.6	739
-72	617	-66.8	809
	7 mol %		
-74.1	464	-69.0	607
-72.0	512	-63.8	783
	31 mol %		
-74.2	363	-65.7	589
-69.0	490	-60.9	762
	60 mol %		
-72.7	360	-64.0	584
	76.5 mol %		
-75.0	338	-64.6	584
-72.0	387	-60.1	736
-68.2	477	-58.0	822
	88 mol %		
-75.4	326	-64.4	599
-71.7	396	-60.9	727
-67.6	501	-58.5	830
	93 mol %		
-75.0	349	-65.0	606
-72.7	395	-62.2	706
-70.0	468	-59.5	815
-67.5	532		
	100 %		
-75.1	353	-65.0	645
-73.1	398	-63.0	709
-71.0	456	-61.0	776
-69.0	526	-59.0	853
-66.6	586		

(fig.)

mol % L	mol % V	p
	-70°	
100	100	485
93	88.5	468
88	82	445
76.5	72	435
60	60	430
31	41	460
7	18.5	580
0	0	690

Hydrobromic acid (HBr) + Sulfur dioxide (SO_2)

Steele and Bagster, 1910

t	p	t	p
	0 %		
-76	517	-68.6	739
-72	617	-66.8	809
	13 mol %		
-75.5	485	-66.4	757
-72	579	-64.3	858
-69.3	664		
	24 mol %		
-75.7	416	-66.7	650
-72.6	482	-63.9	741
-70	552	-61.3	835
	56.5 mol %		
-73.7	330	-58.5	701
-67.1	462	-54.6	825
-63.5	551		
	71 mol %		
-76.0	241	-58.5	560
-71.0	307	-54.4	667
-66.5	379	-49.8	815
-62.7	458		
	78.5 mol %		
-75.0	190	-54.2	506
-69.3	246	-49.6	618
-65.3	304	-46.0	728
-59.6	393	-42.8	829
	86.5 mol %		
-75.1	140	-53.5	386
-70.0	172	-49.4	466
-66.5	210	-45.6	564
-62.4	258	-42.1	645
-58.5	305	-39.3	731
-56.3	341	-38.0	781
	92 mol %		
-75.0	100	-52.0	290
-70.0	123	-46.6	377
-63.0	153	-41.4	486
-60.3	192	-37.0	607
-55.9	241		
	100 %		
-73.0	21	-53.0	94
-67.3	30	-45.0	152
-60.3	58	-36.0	260

mol % L	mol % V	p
	-66°	
100	100	40
32	95	100
16.5	87.5	200
10	78.5	300
5.5	69.5	400
3	54.5	500
2	34.5	600
1.5	17	700
0.5	5	800
0	0	840

Hydroiodic acid (HI) + Deuteroiodic acid (DI)

Urey and Teal, 1939

%	% dissociation	%	% dissociation
398°		468°	
0.0	20.72	0.0	22.72
14.3	20.84	41.7	23.29
		75.5	23.88

Hydroiodic acid (HI) + Hydrogen sulfide (H_2S)

Steele and Bagsters, 1910

t	p	t	p
	0 %		
-39.5	743	-49.2	450
-43.0	638	-52.3	383
-45.8	539		
	36 mol %		
-62.0	305	-51.3	516
-57.7	379	-47.8	624
	63 mol %		
-68.4	285	-52.8	637
-62.5	386	-49.4	765
-57.6	507		
	77.5 mol %		
-73.0	264	-59.5	556
-68.4	343	-55.0	702
-64.0	423	-52.5	885
	85 mol %		
-73.0	302	-58.5	666
-68.0	404	-56.0	757
-63.5	515		
	93.5 mol %		
-71.5	388	-62.5	631
-67.0	496	-58.5	773
	55 mol %		
-61.5	376	-59.0	429
-60.3	400		
	77 mol %		
-62.0	480	-58.8	576
-60.2	534		
	86 mol %		
-62.0	566	-60.2	620
	100 %		
-75.1	353	-65.0	645
-73.1	398	-63.0	709
-71.0	456	-61.0	776
-69.0	526	-59.0	853
-66.6	586		

mol% V	mol% L	p	mol% V	mol% L	p
		-60°			
0	0	255	63.5	85.9	625
15	36	345	66	86.5	630
27.5	55	410	80	93.5	725
33.5	63	450	100	100	830
51.5	77.5	545			

Hydrogen peroxide (H_2O_2) + Sulfur dioxide (SO_2)

Matheson and Maass, 1929

mol%	f.t.	mol%	f.t.
5.8	-5.3	47.2	-10.0
11.7	-11.5	48.4	-3.3
13.9	-18.0	49.7	+2.4
19.5	-31.0	50.5	+4.1

Hydrogen peroxide (H_2O_2) + Ammonia (NH_3)

Hatcher and Maass, 1922

%	f.t.	%	f.t.
0	- 1.72	31.1	+25
3.41	-13	31.2	+25
4.31	-18	33.2	+25 (1+1)
18.05	+ 5	48.6	+ 9.0
19.6	+ 8	49.7	+ 1.5
21.1	+15	50.7	0
23.9	+20	51.8	- 6
25.2	+22	52.8	- 9.5
26.4	+24	68.7	-73
27.7	+25	59.5	-53.5
28.8	+25	56.7	-32

Hydrogen sulfide (H_2S) + Ammonia (NH_3)

Scheffer, 1911

t	P	t	P
	S + L + V		
30.0	3.3	59.9	7.7
31.4	3.4	61.1	8.0
31.6	3.45	63.1	8.4
31.7	3.5	64.8	8.8
39.6	4.3	65.1	8.85
39.7	4.4	70.3	10.3
41.2	4.6	70.6	10.4
41.4	4.6	79.4	13.7
41.5	4.6	87.7	18.3
50.3	5.9	87.8	18.3-18.5
50.5	5.9	89.0	19.3

Hydrogen sulfide (H_2S) + Ammonia (NH_3)

Scheflan and Mc Crosky, 1932

t	p	t	p
	S + L + V		
-21	435.5	-2.5	780.0
12	548.5	0	838.0
10	581.0	+2.5	917.5
7.8	604.5	5	1002.0
7.5	631.5	6	1075.0
5.9	664.0	7.5	1120.0
5	686.0	9	1201.5
-4	708.5	+10	1246.5

mol%	f.t.	mol%	f.t.
100	-78.0	70.0	-40.2
97.5	83.5	67.5	62.2
95.0	88.0	65.0	79.0
92.5	72.3	62.5	91.8
90.0	60.0	60.0	100.8
87.5	48.3	57.5	105.2
85.0	38.2	55.0	114.5
82.5	30.0	52.5	116.8
80.0	22.5	50.0	118.0
77.5	19.2	47.5	118.0
75.0	18.0	0.0	-83.5
72.5	-11.2		
		(2+1)	(1+1)

Hydrogen sulfide (H_2S) + Boron trifluoride (BF_3)

Germann and Booth, 1926

mol%	f.t.	mol%	f.t.	
0	-82	57.0	-137.5	
1.3	84.5	60.5	138	
2.6	86.5	63.9	139.5	
7.3	90.5	67.1	141	
9.3	93.5	69.7	142	
11.6	97	72.6	144	
14.0	100	75.0	146	
16.7	102	77.3	147.5	
19.7	104	79.8	146	
23.5	106.5	82.4	144	
26.9	111	84.8	143	
30.0	113	86.4	141	
32.6	116	87.6	139	
35.6	119	89.0	139	(7+1)
38.9	125	90.5	137	
41.9	128.5	92.1	137	
44.4	133	93.7	132	(1+1)
46.9	137.5	95.6	135	
49.0	141	96.9	130.5	
50.5	137	98.4	131	
53.6	-136	100.0	-128.5	

Hydrogen selenide (H_2Se) + Deuterium selenide (D_2Se)

Kruis, 1941

%	f.t.	tr.t. II-I	tr.t. III-II
0	-65.73	-100.62	-190.9
32.82	-66.15	-99.42	-187.5
34.45	-66.21	-99.41	-187.4
53.68	-66.39	-98.87	-186.0
100	-66.91	-97.14	-182.6

t	Q mix.	t	Q mix.	t	Q mix.
		32.82 mol %			
-205.6	7.030	-176.5	10.84	-130.0	12.87
-200.8	7.577	-175.0	10.65	-129.3	12.88
-196.3	8.154	-172.1	10.79	-123.7	13.30
-193.1	8.694	-170.0	10.76	-117.4	14.15
-190.5	9.512	-166.8	10.96	-112.8	15.10
-190.0	9.851	-164.9	11.14	-107.9	15.92
-190 to-185 decomp.		-161.8	10.91	-104.6	16.88
-184.3	14.92	-160.1	11.21	-102.9	17.25
-183.9	14.53	-154.3	11.29	-100.8	19.06
-183.2	12.03	-148.4	11.89	- 99.5	tr.t.
-181.1	10.84	-146.5	11.66	- 95.6	14.42
-180.1	10.85	-142.7	12.07	- 85.1	14.40
-180.0	10.93	-140.6	11.87	- 69.7	14.64
-178.8	11.04	-134.8	12.52	- 66.2	f.t.
		34.45 mol %			
-208.9	6.748	-171.0	10.93	-113.7	14.78
-203.5	7.304	-165.8	11.07	-107.7	16.01
-197.4	8.055	-160.3	11.27	-102.3	18.46*
-193.1	8.685	-152.7	11.66	- 87.3	14.57
-189.2	14.86	-146.1	12.14	- 81.7	14.51
-189.2 to-187 dec.		-139.7	12.21	- 76.2	14.82
-186.8	27.46	-133.2	12.85	- 59.8	14.78
-181.6	11.78	-125.5	13.27	- 57.8	16.40
-175.8	10.85	-119.5	14.08		
		53.68 mol %			
-207.8	7.030	-170.8	11.19	-108.5	15.69
-204.6	7.408	-166.6	11.37	-106.0	16.71
-203.2	7.584	-162.5	11.39	-104.2	17.12
-199.6	7.961	-158.7	11.47	-102.1	18.54*
-199.0	7.976	-154.4	11.63	- 94.4	14.71
-195.8	8.448	-149.4	12.06	- 90.2	14.60
-195.4	8.574	-144.2	12.24	- 89.4	14.48
-192.3	8.897	-139.2	12.55	- 85.6	14.62
-191.0	8.933	-134.5	12.74	- 85.5	14.44
-188.7	9.450	-129.4	13.76	- 81.2	14.51
-188.1	9.855	-124.4	13.61	- 80.7	14.74
-188 to-184 dec.		-123.0	13.72	- 76.7	14.44
-183.9	27.63	-119.4	14.26	- 76.2	14.76
-183.8	26.13	-117.8	14.45	- 72.5	14.54
-181.6	13.11	-114.9	14.89	- 71.1	14.88
-181.3	13.08	-113.0	15.04	- 63.2	16.86
-177.5	11.45	-110.6	15.61	- 59.7	16.76

* tr.t.

Ammonia (NH_3) + Hydrazine (N_2H_4)

Drago and Sisler, 1956

mol % L	mol % V	P	mol % L	mol % V	P
		88.5°			
0.00	0.0	49.0	47.82	-	26.2
4.29	0.195	49.6	48.29	1.33	25.9
18.93	0.631	38.4	58.77	1.67	22.0
19.89	0.673	38.0	65.65	2.01	18.6
29.37	0.823	33.7	65.81	2.03	18.6
29.57	0.842	33.7	66.40	2.03	18.5
35.80	0.984	31.6	75.30	2.36	14.6
35.93	0.991	31.6	77.58	2.49	13.5
36.12	0.987	31.5			
		100.3°			
0.00	0.0	62.2	25.47	1.06	-
4.86	0.315	58.1	26.57	1.11	-
9.69	0.501	54.0	31.91	-	40.8
9.76	-	54.1	31.77	-	40.9
10.00	0.538	53.8	36.79	1.42	38.4
10.10	-	53.9	48.88	1.76	31.8
10.24	-	54.1	60.21	2.20	26.5
10.54	0.537	53.6	67.64	2.74	22.4
13.35	-	52.1	68.20	2.77	22.2
13.93	-	51.6	75.80	3.20	17.6
19.65	0.901	48.0	79.51	3.66	15.2
20.47	0.928	47.8			
		114.1°			
0.0	0	80.7	15.71	1.13	64.4
5.18	0.564	74.6	20.88	1.41	60.1
5.36	0.565	74.1	22.76	1.48	-
5.76	0.567	-	23.82	1.46	-
6.04	0.603	-	34.82	1.82	50.4
6.95	0.676	-	35.33	1.79	49.6
10.16	0.913	-	37.86	1.91	48.2
10.62	0.940	-	50.28	2.30	39.1
10.70	0.939	-	51.83	2.41	38.0
10.97	-	67.8	61.43	2.94	32.0
11.87	-	67.6	69.54	3.50	27.2
11.96	1.01	-	70.00	3.55	26.9
12.08	--	67.2	76.52	4.11	21.2
12.40	0.993	67.0	77.66	-	21.0
12.699	1.05	-	81.55	4.95	17.6
14.75	-	65.0			
		124.9°			
0.00	0.0	97.9	40.01	2.47	54.3
7.42	1.03	86.1	54.17	3.04	43.9
7.65	0.965	85.2	62.18	3.30	36.4
14.22	-	77.6	62.50	3.49	36.3
15.17	-	77.1	72,11	3.63	30.1
22.83	1.84	70.3	72.40	-	30.0
23.39	1.88	70.2	74.99	4.90	27.4
37.65	-	56.4	81.80	5.92	21.4
39.34	-	55.8	83.31	6.02	19.9

Friedrichs, 1923

%	p	t	%	p	t
0	45	-78	51.0	395	-40
8.5	42	-79	52.4	415	-39
13.0	40	-80	53.8	430	-38
13.5	42	-79	55.0	445	-37
14.0	45	-78	56.0	462	-36
14.5	47	-77	57.1	480	-35
15.0	50	-76	58.0	497	-34
15.5	55	-75	59.5	515	-33
16.3	60	-74	60.7	530	-32
17.0	65	-73	62.2	548	-31
18.5	67	-72	63.8	562	-30
19.0	72	-71	64.5	577	-29
19.5	78	-70	65.7	590	-28
20.0	83	-69	67.0	605	-27
21.0	87	-68	68.3	617	-26
22.0	92	-67	69.8	630	-25
22.7	100	-66	71.0	640	-24
23.9	106	-65	72.6	655	-23
25.0	113	-64	73.5	660	-22
26.2	120	-63	74.7	670	-21
27.0	127	-62	76.0	675	-20
28.0	137	-61	77.0	680	-19
29.1	145	-60	77.9	682	-18
30.0	157	-59	79.3	682	-17
31.0	166	-58	80.2	680	-16
31.5	177	-57	81.6	677	-15
32.7	188	-56	82.7	678	-14
33.8	197	-55	84.0	665	-13
35.0	209	-54	85.6	655	-12
35.9	220	-53	86.8	640	-11
37.2	231	-52	87.6	620	-10
38.5	240	-51	88.3	598	- 9
39.7	252	-50	89.8	575	- 8
40.7	265	-49	91.0	545	- 7
41.8	275	-48	92.6	510	- 6
42.7	290	-47	92.6	470	- 5
43.8	305	-46	94.0	420	- 4
45.0	320	-45	95.0	375	- 3
46.0	335	-44	95.8	320	- 2
47.4	345	-43	96.6	290	- 1
48.5	363	-42	98.0	175	0
49.7	380	-41	98.6	105	+ 1

Ammonia (NH_3) + Ammonium chloride (ClH_4N)

Hunt and Larsen, 1934

mol%	p	mol%	p
	25°		
32.7	3140	6.76	7259
29.6	3140	5.88	7290
27.6	3643	5.29	7307
25.6	4212	4.76	7324
24.4	4565	3.86	7352
22.9	4978	3.03	7376
21.4	5308	2.80	7386
20.4	5582	1.91	7417
18.8	5958	1.62	7425
17.0	6290	1.43	7434
13.9	6745	1.15	7442
13.0	6856	0.94	7452
11.8	6965	0.89	7455
10.5	7070	0.81	7459
9.61	7124	0.75	7468
9.12	7140	0.69	7471
7.58	7223		

Abe, Watanabe and Hara, 1935

%	p	%	p
	19.89°		
21.84	6114	46.14	4251
28.64	5923	48.93	3759
37.71	5218	52.11	3172
43.35	4709	54.11	2800
	14.90°		
37.46	4420	48.59	3165
43.04	3991	51.95	2654
45.82	3597	53.51	2328
	9.91°		
19.48	4409	45.59	3020
28.03	4244	48.26	2640
37.26	3719	51.76	2196
42.66	3353		
	4.92°		
37.46	3106	42.39	2796
	0.0°		
18.04	3096	36.92	2581
27.81	2902		
	- 9.96°		
17.03	2109	27.49	2003
	-20.0°		
15.39	1373	27.33	1303

t	p	t	p
	V + L + NH_4Cl		
24.83	3117	6.94	1528
19.89	2580	4.93	1412
14.88	2122	2.95	1293
9.92	1734	0.00	1123
	V + L + NH_4Cl . $3NH_3$		
5.92	1459	-9.96	1919
6.43	1554	20.00	1332
6.93	1667	24.48	1107
7.13	1729	28.54	925
6.93	2402	31.43	807
6.43	2477	37.12	610
4.92	2545	37.55	596
3.94	2554	46.54	368
2.94	2548	52.47	260
0.00	2469	52.55	259
-4.97	2220		

Schattenstein and Uskova, 1935

m	p	m	p
	15°		
0	5462.5	1.958	5355.5
0.304	5441.5	2.330	5344.5
.349	5436.5	2.514	5342.5
.614	5416.5	2.721	5335.5
.761	5405.5		
1.430	5376.5		

Kendall and Davidson, 1920

mol%	f.t.	mol%	f.t.
0	-74.8	14.0	-5.1
1.2	67.4	16.1	0
2.6	50.5	18.1	+3.2
4.5	35.0	21.0	6.6
6.9	25.6	22.9	9.5
7.8	22.0	25.0	10.17 (3+1)
8.7	19.6	26.0	10.0
10.2	15.0	27.7	9.1
11.4	11.9	28.5	31.0
12.1	-10.0		

Scherer, Jr., 1931

c	f.t.	c	f.t.
5.2	-49.6	7.6	-40.1
5.9	-46.8	8.6	-37.2
6.5	-44.2	9.6	-34.6
7.0	-42.2		

Abe, Watanabe and Hara, 1935

%	f.t.	%	f.t.
55.03	0.00	55.20	14.90
55.09	9.91	55.24	19.89
54.55	11.40	55.36	24.83

Schattenstein and Uskova, 1935

%	d	%	d
	15°		
2.11	0.631	12.02	0.689
3.90	.641	16.10	.712
7.41	.662	17.22	.719
8.72	.670		

Kikuti, 1939

%	d			
	-30°	-20°	-10°	0°
0.0	0.6776	0.6650	0.6520	0.6386
4.8	.7023	.6904	.6780	.6653
9.1	.7251	.7136	.7019	.6897
16.7	.7655	.7549	.7441	.7329
18.9	.7776	-	-	-
24.9	-	.8008	-	-
28.6	-	-	.8131	.8034
31.9	-	-	.8316	-
37.5	-	-	-	.8556
40.0	-	-	-	.8594
	+10°	+20°	+30°	+40°
0.0	0.6247	0.6103	0.5952	0.5795
4.8	.6521	.6386	.6246	.6099
9.1	.6772	.6644	.6512	.6373
16.7	.7215	.7098	.6978	.6850
28.6	.7936	.7837	.7734	.7630
37.5	.8469	.8383	.8294	.8205
44.4	.8853	.8776	.8698	.8619
50.0	.9128	.9059	.8990	.8919
54.6	.9336	.9277	.9218	.9153
	+50°	+60°	+70°	
0.0	0.5629	0.5452	0.5263	
4.8	.5944	.5781	.5610	
9.1	.6228	.6076	.5916	
16.7	.6719	.6581	.6436	
28.6	.7523	.7414	.7304	
37.5	.8115	.8024	.7931	
44.4	.8540	.8461	.8382	
50.0	.8849	.8778	.8708	
54.6	.9091	.9029	.8965	

%	t	d	%	t	d
55.24	10	0.9367	55.73	50	0.9157
55.34	20	.9315	55.86	60	.9105
55.48	30	.9266	55.98	70	.9052
55.60	40	.9210			

Ammonia (NH_3) + Ammonium bromide (BrH_4N)

Roozeboom, 1885

mol%	p			
	-10°	-5°	0°	+5°
24.0	500	641	811	1007
25.3	-	-	762	954
25.9	436	562	716	900
26.5	405	523	672	852
27.2	408	511	637	798
27.9	-	515	637	780
28.6	-	-	-	-
29.3	408	512	636	780
31.1	-	-	633	-
32.9	408	511	634	778

mol%	p			
	+10°	+15°	+20°	+25°
24.0	1253	1538	-	-
25.3	1185	1461	-	-
25.9	1121	1336	-	-
26.5	1069	-	-	-
27.2	999	-	-	-
27.9	944	1161	-	-
28.6	945	1134	1368	-
29.3	945	1135	1350	1591
31.1	941	-	-	-
32.9	942	1130	1347	1585

mol%	p solid ((3+1)+(1+1))			
	-10	-5	0	+3
25.3	-	-	579	-
25.9	312	427	578	687
26.5	-	-	577	-
27.2	313	-	575	687
27.9	-	-	575	-
29.3	312	426	577	-
32.9	314	429	578	688

mol%	p solid ((3+1)+(1+1))			
	+4	+5	+6	+7
25.3	754	820	908	1010
25.9	-	-	873	967
26.5	730	-	850	-
27.2	-	-	832	-
27.9	725	763	-	-
29.3	728	770	-	-
32.9	-	769	-	-

mol%	p	f.t.	mol%	p	f.t.
25.3	1099	7.5	27.9	796	5.5
25.9	992	7.2	29.3	794	5.5
26.5	918	6.8	32.9	795	5.5
27.2	844	6.2			

Hunt and Larsen, 1934

mol%	p	mol%	p
	25°		
39.1	1023	9.39	6711
35.3	1023	8.55	6834
30.9	1023	7.52	6951
28.6	1842	6.58	7043
28.1	1965	5.41	7135
26.5	2260	4.42	7222
25.0	2579	3.91	7254
23.3	3055	2.77	7325
22.1	3046	2.44	7349
20.3	3962	2.22	7359
18.9	4401	1.75	7392
17.6	4808	1.38	7415
16.2	5226	1.05	7432
15.2	5507	0.77	7451
14.8	5597	0.68	7455
12.8	6090	0.66	7459
11.9	6281	0.58	7463
9.97	6625		

Schattenstein and Uskova, 1935

m	p	m	p
	15°		
0	5462.5	1.536	5342.5
0.198	5445.5	2.194	5288.5
.377	5429.5	2.956	5222.5
.379	5429.5	3.507	5214.2
.557	5415.5	3.577	5167.5
.708	5404.5	4.317	5081.5
.926	5386.5		

Linhard, 1936

m	p	m	p
	0°		
0	3220.9	6.311	2798
0.217	3208	9.956	2281
0.655	3187	11.40	2036
1.301	3157	13.70	1637
3.265	3050	14.08	1559
5.277	2899		

Kurilov, 1893

%	p	%	p
	sat.sol.		
	0°		
a*		b	
34.10	640	43.09	575
29.78	639	33.91	578
22.10	638	27.31	575
20.65	638	21.10	577
		18.13	578
		15.89	363
		11.13	362
		1.66	362

*a - immediately

b - after having cooled the solution at -10°

%	p dissoc.	
0°		
17.62	618	
15.84	368	
11.14	360	
1.65	362	(1+1)

Roozeboom, 1885

mol%	t absorption (NH_3 gaseous)
21.1	-10
23.0	-5
25.3	0
26.1	+2.5
26.7	4
27.0	5

mol%	f.t.	mol%	f.t.
	(3+1)		
25	8.7	27.4	6.9
25.3	8.6	27.5	6.6
25.6	8.4	27.9	10
26.0	8.2	28.2	15
26.3	8.0	28.6	20
26.7	7.7	29.0	25
27.0	7.3		
	(1+1)		
27.55	6.6	26.88	-5
27.48	5	26.60	-10
27.17	0		

Kendall and Davidson, 1920

mol%	f.t.	mol%	f.t.
0	-74.8	23.8	+12.1
4.4	-76.0	25.0	13.7 (3+1)
7.1	-76.7	25.7	13.1
10.5	-57.4	26.9	11.7
11.1	-49.0	27.2	10.9
12.4	-34.0	27.8	9.7
14.1	-23.1	28.2	9.2
16.6	-9.0	28.6	20.0
17.4	-4.1	29.3	32.6
18.7	+0.4	30.1	83.0
20.3	+6.0	31.4	+87.0
22.2	+10.1		

Scherer, jr., 1931

c	f.t.	c	f.t.
47.1	-50.0	49.7	-40.5
48.2	-44.0	50.6	-38.2
48.9	-41.2	52.0	-31.8
49.0	-42.8		

Fitzgerald, 1912

m	d	η
	-33.5°	
4.078	0.990	1461
1.888	.837	534.0
1.103	.766	391.6
0.644	.734	332.3

m	d	m	d
	33.5°		
4.282	1.0015	1.407	0.7927
4.041	0.9875	1.060	.7654
2.212	0.8530	0.576	.7281

Schattenstein and Uskova, 1935

%	d	%	d
	15°		
1.98	0.630	18.51	0.742
3.76	.641	23.88	.784
9.11	.676	27.83	.817
17.02	.730		

Ammonia (NH_3) + Ammonium iodide (NH_4I)

Hunt and Larsen, 1934

mol%	p	mol%	p
	25°		
33.6	736	9.40	6124
33.4	738	8.93	6218
29.4	842	8.26	6383
27.9	960	7.52	6547
25.0	1328	6.06	6833
23.5	1587	5.59	6911
21.9	1957	4.90	6875
21.4	2103	4.74	7041
20.9	2324	4.50	7080
20.7	2411	4.03	7124
20.2	2554	3.21	7220
19.9	2823	2.65	7278
19.0	3013	2.19	7321
18.7	3167	2.04	7334
18.0	3582	1.64	7372
17.0	3755	1.48	7388
16.6	4060	1.19	7409
15.7	4486	0.99	7426
14.5	4773	0.86	7436
13.7	4875	0.74	7449
13.3	5174	0.68	7451
12.6	5530	0.62	7457
11.4	5807	0.56	7460
10.5		0.50	7471

Linhard, 1936

m	p	m	p
	0°		
0	3220.9	7.754	2217
0.204	3208	10.37	1632
0.405	3196	13.88	956.0
0.877	3167	15.52	729.0
1.829	3098	17.68	521.4
2.698	3020	18.49	465.3
4.499	2804	23.08	268.9
6.278	2509	23.08	268.6

Scherer, Jr., 1931

c	f.t.	c	f.t.
62.1	-50.0	66.7	-42.0
63.3	-47.5	69.2	-38.6
64.6	-45.2	71.2	-35.3

Kendall and Davidson, 1920

mol%	f.t.	mol%	f.t.	
0	-74.8	22.1	-9.2	-9.2
2.5	76.8	23.0	-10.9	-10.9
4.6	78.6	23.1	-9.1	-10.9
7.2	79.5	24.1	-8.0	-9.1
8.0	71.8	25.0	-8.9	-8.0
9.8	58.0	25.7	-10.0	-8.9
11.2	46.2	26.2	-11.5	-10.0
13.2	29.5	26.8	-7.0	-11.5
14.9	20.2	27.6	+2.5	-7.0
16.0	16.0	28.5	22.6	+2.5
16.8	13.2	30.2	44.2	22.6
18.0	9.4	32.0		44.2
20.0	5.1	33.2		57.0
20.8	-6.8			
(4+1)	(3+1)			

Ammonia (NH_3) + Ammonium trinitride (H_4N_4)

Browne and Houlehan, 1913

%	p dissoc.	%	p dissoc.
	(2+1)		
	0°		
99.94	1273	54.1	1495
95.40	1483	57.9	1494
93.05	1491	62.4	1494
90.1	1495	67.5	1494
84.9	1503	78.3	1488
76.6	1505	81.0	1487
69.7	1506	84.5	1486
63.9	1507	88.1	1486
59.1	1508	92.0	1484
54.8	1508	95.27	1484
45.8	1773	98.14	1476
48.3	1589	98.76	1473
50.6	1496		
	-33°		
33.3	591	58.0	436
34.1	567	60.2	431
34.9	556	63.1	392
35.7	544	63.6	328
36.7	522	64.1	228
37.9	497	64.2	232
38.5	486	64.7	228
39.3	470	65.4	228
40.1	449	67.3	228
41.0	428	68.9	228
42.0	407	70.5	228
43.1	385	72.3	228
44.1	362	74.0	228
45.1	340	75.8	228
46.2	319	77.7	228
47.3	298	79.4	228
48.7	438	81.1	228
50.3	436	83.8	228
52.0	436	92.14	228
53.9	437	94.57	228
55.9	437	98.54	220

Howard, Friedrichs and Browne, 1934

mol%	p	
0°		
19.0	1668	L + V
19.3	1625	
19.7	1580	
20.2	1531	
20.4	1509	
21 - 60	1488	H_4N_4 + sat.sol. + V
70.4	1486	
82.0	1485	
92.6	1479	
98.0	1466	
100.0	1431 - 2.6	H_4N_4 + V
-15°		
16.1	1043	L + V
16.4	1014	
16.9	976	
17.5	933	
18.1	892	
18.5-26	860	(2+1) + sat.sol. + V
27.0	856	
28.6	857	
30.3	846	
32.2	831	
33.3	853-775	(2+1) + V
34 -8	710	(2+1) + H_4N_4 + V
-20°		
14.7	932	L + V
15.3	897	
15.8	860	
16.1	846	
16.5	820	
17.2	778	
17.7	745	
18.1	719	supersat.sol. + V
18.7	690	
18.8	678	
19.3	650	
20.0	619	
20.4	590	
20.8	570	
18-24	730	(2+1) + sat.sol. + V
26.0	727	
28.8	725	
30.4	723	
31.7	706	
33.0	696-529	(2+1) + V
33.6-96	525	(2+1) + H_4N_4 + V
100	81-614	H_4N_4 + V
94.3	622	H_4N_4 + sat.sol. + V
88.5-60	624	
37.3	627	
25.6	629	
19.7	631	
-35°		
15.2	442	L + V
14.8	427	
15.4	408	
15.8	392	Supersat.sol. + V
16.4	371	
17.2	346	
16.3-31	391	(2+1) + sat.sol. + V
33.3	371-202	(2+1) + V
34.5-88	192	(2+1) + H_4N_4 + V

-50°

13.3	206	L + V
13.6	202	
14.1	195	
14.5	188	
15.0	181	
15.6	172	
15.8	168	
15.6-32.5	182	(2+1) + sat.sol. + V
33.1	176-62	(2+1) + V
34.2-32.6	60	(2+1) + H_4N_4 + V
97.1	59	H_4N_4 + V
100	0	

-78.3°

8.22	36.9	L + V
8.64	35.6	
9.05	35.1	
9.63	34.0	
10.2	33.1	
10.8	32.0	supersat.sol. + V
11.4	30.4	
12.3	29.0	
13.7-14.9	26.1	(2+1) + sat.sol. + V
11.4-16.2	32.0	(5+1) + sat.sol. + V
16.7	30.4-26.1	(5+1) + V
17.4-28.6	23.6	(5+1) + (2+1) + V
33.3	22.5-90	(2+1) + V
33.9	6.4	(2+1) + H_4N_4 + V
36.0	5.4	
38.5	5.3	
40.3-92.6	5.0	
100	4.4-1.5	H_4N_4+V

t	p	t	p
(2+1) + H_4N_4+V		(5+1)+(2+1)+V	
-78.3	5.0	-83.3	14.8
-76.3	7.0	-82.7	15.8
-74.3	8.3	-81.5	18.1
-70.0	12.6	-79.2	22.9
-69.8	12.0	-78.4	24.2
-66.1	16.5	-77.0	27.3
-65.0	19.3	-76.8	28.3
-63.1	21.3	-75.0	33.7
-60.3	27.0	-73.5	38.4
-60.0	27.2	-72.0	36.4
-58.0	33.5	(2+1)+sat.sol.+V	
-57.3	35.0		
-55.0	42.1	-78.0	30.8
-53.2	48.0	-73.15	42.1
-52.0	54.8	-71.7	48.5
-47.0	61.8	-69.6	53.7
-50.0	76.7	-68.0	60.2
-45.0	92.6	-66.4	67.2
-44.0	96.3	-64.3	77.4
-40.0	135	-61.16	92.2
-38.0	153	-58.0	115
-35.0	194	-54.8	140
-32.0	233	-51.7	160
-30.0	272	-48.5	192
-26.0	347	-45.4	242
-25.0	379	-42.25	279
-23.0	425	-39.2	323
-20.0	522	-36.1	374
-17.0	624	-34.0	423
-13.0	796	-31.9	456
-10.0	956	-28.8	524
		-26.8	568
		-24.75	617
		-21.65	690
		-19.6	743
		-17.5	807
		-15.45	861
		-13.4	914
		-11.35	974
		-9.3	1031

H_4N_4 + sat.sol. + V

-51.7	105	-7.25	1125
-49.6	121	-5.2	1223
-46.4	146	-3.05	1329
-44.3	169	-1.0	1441
-41.2	204	0.0	1490
-39.2	230	+2.0	1610
-35.0	292	4.0	1733
-32.9	328	6.0	1873
-30.9	365	8.0	2011
-28.4	419	10.0	2168
-27.8	430	12.0	2333
-24.8	503	14.0	2491
-21.7	589	16.0	2661
-18.6	678	18.0	2856
-15.5	784	20.0	3053
-13.6	852	22.0	3255
-11.3	942	24.0	3477
-9.3	1024	26.0	3702
-8.3	1072	28.0	3946

%	f.t.	%	f.t.
0.0	-77.7	38.23	-47.4
14.98	82.5	38.71	44.85
16.03	83.0	39.19	41.2
17.79	83.8	39.76	37.7
17.80	84.4	40.16	35.65
20.48	85.2	40.74	32.7
22.40	86.0	41.29	30.25
24.52	86.1	41.82	27.1
25.49	85.4	42.66	24.0
27.58	82.9	43.28	21.35
29.20	80.9	44.02	18.65
30.39	78.5	44.78	16.3
30.98	78.0	45.59	13.4
31.80	76.8	45.85	12.5
32.41	76.0	46.17	11.3
32.91	75.4	46.42	10.7
34.38	73.0	46.56	10.2
35.71	72.6	46.82	9.4
35.70	73.15	46.16	28.4
35.86	71.4	46.46	20.2
36.04	68.0	46.86	13.6
36.23	65.8	47.00	9.0
36.43	63.8	47.03	8.9
36.73	60.5	47.15	8.4
36.99	57.25	47.30	5.0
37.33	54.7	47.60	-0.4
37.73	51.3	48.10	+6.9
	(5+1)		(2+1)

Ammonia (H_3N) + Hydrazine trinitride (H_5N_5)

Howard and Browne, 1934

mol%	p	mol%	p
	0°		
	H_5N_5 + (1+2) + V		
98	4.5	78	4.9
95	4.9	73	6.3
88.5	4.6	70.5	6.6
82.5	5.2	68	7.0
66	24-894	(1+2) + V	
	20°		
	(1+2) + V		
65.5	988	63.5	1328
65	1135		
	50°		
65.5	941-1090	(1+2) + V	

t	p
(1+2) + H_5N_5 + H_3N	
0.0	2.7
10.0	3.2
20.1	5.4
21.2	5.7
33.8	11.2
44.7	22.4
47.0	26.8
49.6	30.6

Ammonia (NH_3) + Boron trifluoride (BF_3)

Lecat, 1949

%	b.t.
0	- 33
80	+180 Az
100	-101

Ammonia (NH_3) + Silicium fluoride (SiF_4)

Miller and Sisler, 1955

t	p dissoc.	t	p dissoc.
	(2+1)		
-78.7	1.9	-129.5	48.3
81.0	2.0	129.8	49.1
90.0	4.3	130.5	49.7
90.4	4.3	132.0	54.9
91.0	5.0	134.7	64.4
97.2	6.6	139.1	82.2
98.5	7.5	139.3	82.1
110.0	15.7	139.5	82.7
117.0	22.7	139.8	86.3
118.5	25.1	142.8	103.3
122.3	33.5	148.7	136.9
124.7	38.0	-149.2	140.3
-125.8	39.2		

Ammonia (H_3N) + Sulfamide (H_4NO_2S)

Sisler and Rosenbaum, 1952 (fig.)

mol%	f.t.	mol%	f.t.
100	91.5	30.9	-19.0 E
80	75	26	-12.5 (3+1)
60	47	20	-20
40.5	-21.8 E	3	-78.0
35	-15.8(2+1)	0	-77.8 (1+2)

Ammonia (NH_3) + Nitric acid (HNO_3)

Groschuff, 1904

%(1+1)	f.t.	%(1+1)	f.t.
21.1	+8	52.7	11.5
28.7	23	54.3	12
34.5	28.5	54.7	12
38.8	29.5	57.6	11.5
44.6	27.5	54.0	11.5
45.8	27	54.3	14.5
49.4	23.5	54.7	17
50.0	23	55.9	26
54.0	17.5	56.2	27
54.3	16.5	57.5	33.5
45.8	4	60.4	49
49.4	9.5	68.1	79
51.7	11		
(1+3)	(1+2)		

N.B. see also NH_3 + $H_4N_2O_3$ (Ammonium nitrate)

Ammonia (NH_3) + Ammonium nitrate ($H_4N_2O_3$)

See also the system :
Nitric acid + Ammonium nitrate

Foote and Brenkley, 1921

mol%	p	mol%	p	mol%	p
0°		10°		22°	
41.38	364	43.10	533	45.10	703
39.37	390	41.95	552	43.24	770
38.76	406	39.83	594	41.57	843
37.48	441	37.90	663	39.21	947
35.54	403	35.78	762	37.51	1031
33.18	573	33.93	852	36.22	1112
30.74	673	32.76	910	35.51	1170
28.87	763	32.00	952	34.30	1253
26.82	864	29.60	1112	33.02	1331
25.14	969	27.71	1254	31.87	1420
23.76	1064	26.24	1379	30.92	1495
22.46	1166	25.07	1484	29.96	1582
21.42	1261	23.90	1600	0.00	6480
20.23	1375	0.0	4656		
19.13	1496				
18.16	1609				
0	3255				

%	f.t.
76.87	0
78.09	10
79.45	20

Hunt and Larsen, 1934

mol%	p	mol%	p
25°			
57.3	863	11.10	6130
55.3	863	9.90	6381
45.0	880	8.06	6726
43.5	970	7.58	6827
39.1	1230	6.02	6992
36.2	1434	4.41	7166
35.1	1529	2.98	7279
34.1	1635	2.07	7355
31.3	1929	1.89	7366
27.9	2358	1.64	7387
26.0	2667	1.41	7404
24.4	2914	1.23	7417
22.5	3311	1.08	7426
20.0	3859	0.89	7437
18.0	4386	0.79	7444
16.1	4891	0.74	7448
13.7	5511	0.71	7500
12.4	5807		

Schattenstein and Uskowa, 1935

m	p	m	p
15°			
0.253	5436	1.055	5365
.295	5432	.270	5350
.476	5420	.973	5288
.521	5417	2.233	5254
.745	5399		

Kurilov, 1893

% (3+1)	p dissoc.	% (3+1)	p dissoc.
0°			
L			
30.92	1033	51.12	599
32.18	1002	53.65	578
39.71	847	54.84	539
40.36	832	59.69	485
42.59	789	60.74	453
44.50	750	61.87	441
45.72	729	62.80	425
46.34	718	63.75	410
47.89	686	64.63	395
49.35	638	67.56	344
50.57	624	68.23	336
L + C			
71.69	364	76.01	364
72.20	364	77.50	362
72.68	364	78.08	361
72.86	364	79.65	363
73.67	364	80.86	362
75.42	362	81.44	354
C			
91.57	348	97.31	223
94.86	315	97.78	216
95.51	301	98.43	170
95.90	281		
-10.5°			
L			
55.12	345	60.90	276
58.15	306	62.19	263
L + C			
63.22	245	75.80	242
65.75	242	80.38	242
69.72	240	90.67	244
C			
94.90	166	96.81	98

Franklin and Kraus, 1898

%	D b.t.	%	D b.t.
1.85	+0.087	14.16	+0.834
1.98	.101	17.72	1.192
3.57	.166	19.32	1.368
5.52	.263	21.73	1.675
7.76	.388	24.31	2.100
10.57	.557		

Kurilov, 1898

mol%	f.t.	mol%	f.t.
100	168	38.3	0
74.2	109.8	36.9	-10.5
67.3	94	32.3	-30.0
53.8	68.8	13.9	-44.5
47.0	35.9	6.25	-60
45.9	33.3	0	-80

(3+1)

Scherer Jr., 1931

c	f.t.	c	f.t.
70.1	-50.6	75.1	-40.8
72.6	-46.5	77.0	-36.6
73.4	-45.0	77.4	-34.2
73.5	-44.0	9.77	-34.0

Schattenstein abd Uskowa, 1935

%	d	%	d
	15°		
3.00	0.636	18.35	0.724
6.34	.654	19.11	.730
8.40	.665	20.90	.740
12.22	.687	21.55	.744

Ammonia (NH_3) + Ammonium perchlorate (ClH_4NO_4)

Mazzetti and De Carli, 1926

%	f.t.	m.t.	%	f.t.	m.t.
9.90	-77	-	56.28	-57.6	-72
19.41	80.6	-	56.79	52.2	73.4
24.69	78.8	-	57.25	50.6	-
27.83	81.6	-96	57.54	51	-
32.00	84.6	97	56.84	46.4	-
35.12	85.4	94	59.86	41.2	-
38.17	88.2	94.6	60.97	36.5	-
40.73	88.5	97	61.50	34.2	-
42.20	89	95	62.50	34	-34
44.29	91.4	96.5	64.50	22	33
46.79	95.6	96.2	65.50	19	31
49.00	96.5	96.5	66.00	15	34
50.00	88	97.5	68.00	10	32
50.50	81.4	96.5	69.00	6	34
51.31	74	99.5	71.00	-0.5	-34
52.40	73	96.5	72.43	+9	-
53.30	71	-	75.0	32	-
54.81	63.4	-	76.5	40	-
54.94	62.5	-73	77.5	52	-
55.00	-63	-	88.7	140	-

Diborane (B_2H_6) + Boron trifluoride (BF_3)

Mc Carty, 1949

Az : 58.4 mol % -106°/760 mm

Hydrazine (H_4N_2) + Hydrazine trinitride (H_5N_5)

Dresser, Browne and Mason, 1933

%	f.t.		%	f.t.
100.0	75.4		48.8	52.7
94.0	67.5		42.9	43.4
89.1	55.4		37.9	31.5
83.8	58.8		32.8	18.5
77.4	65.0		28.0	3.1
73.8	66.2		24.8	-8.5
70.3	66.4	(1+1)	15.0	-7.8
64.9	66.0		7.1	-2.0
59.5	63.8		0.0	+1.0
54.9	60.2			

E : 51° and -17.5°

Sulfur monobromide (SBr) + Phosphorus pentabromide (PBr_5)

Pushin and Makucz, 1938 (fig.)

mol%	f.t.	E	mol%	f.t.	E
100	107	-	24.5	42	-52
70.5	90	-	18.5	27	-50.5
63.5	85	-	12.5	11	-49.5
55	79.5	-	8.5	-3.5	-50
46	70.5	-	3	-	-47.5
35	58	-53	0	-46	-

Sulfur monobromide (SBr) + Arsenic tribromide ($AsBr_3$)

Pushin and Makucz, 1938

mol%	f.t.	E	mol%	f.t.	E
0	-46	-	55.5	+2	-56
2	-47	-	63	6.5	-59
8	-50	-56.5	73	14.5	-61
13.5	-	-56	80.5	20	-62
19	-50.5	-56.5	90	25.5	-63
33	-23	-56	93	28	-64
39.5	-16.5	-56	100	31	-
41	-13	-			

Sulfur monobromide (SBr) + Antimony tribromide ($SbBr_3$)

Pushin and Makucz, 1938

mol%	f.t.	E	mol%	f.t.	E
0	-46	-	58	63	-62.5
12.5	-	-46	67.5	70.5	-62
23.5	+22.5	-48	74.5	75.5	-62.5
31.5	34.5	-54	85.5	84.5	-66
40	45	-60	100	94	-
50	55.5	-62			

Bromine trifluoride (BrF_3) + Bromine pentafluoride (BrF_5)

Stein, Vogel and Ludewig, 1954

mol%	d	mol%	d
	25°		
0	2.8030	56.85	2.5990
10.09	.7646	67.11	.5648
16.10	.7418	69.65	.5560
30.74	.6893	72.20	.5495
38.68	.6609	84.72	.5102
45.32	.6389	86.91	.5025
46.18	.6366	100.00	.4604

mol%	n_D	mol%	n_D
	25°		
0	1.4536	47.84	1.3982
17.64	.4321	66.08	.3803
36.21	.4109	81.99	.3660
38.67	.4078	100.00	.3529

Bromine trifluoride (BrF_3) + Antimony pentafluoride (SbF_5)

Fischer, Liimatainen and Bingle, 1955

mol%	f.t.	E	tr.t. 1	tr.t. 2
0	8.7	-	-	-
7.3	-1.2	-33.8	-	-
12.4	-14.6	-32.7	-	-
17.9	-26.8	-32.9	-	-
19.7	-20.2	-32.9	-	-
22.5	-14.1	-36.7	-	-
25.1	+1.0	-	-17.1	-
26.3	10.1	-	-16.3	-
29.3	25.5	-	-17.5	-
31.6	30.5	-	-17.0	-
33.6	-	-	-17.4	+30.8
36.1	62.8	-	-21.2	29.6
38.8	85.9	-	-21.8	29.7
40.8	98.5	-	-	23.2
43.3	110.2	-	-	21.5
47.7	122.5-123	-	-	-
51.0	129.3-129.6	-	-	-
56.2	109.9-110.1	+11.9	-22.7	-
61.4	71.2	12.4	-20.6	-
64.5	40.8	15.9	-22.5	-
68.6	21.8	16.7	-22.4	-
71.2	31.1	+15.2	-22.8	-
73.8	30.9	-	-22.8	-
75.7	33.2	-	-22.6	-
77.2	34.1	-	-22.9	-
78.2	29.0	-	-23.9	-
79.3	30.3	-10.8	-23.3	-
81.6	29.8	-4.4	-22.8	-
82.9	30.2	-5.2	-23.3	-
84.4	25.4	-1.2	-22.4	-
86.0	22.3	-2.5	-22.2	-
87.7	24.2	+1.7	-22.1	-
90.2	24.3	1.4	-22.5	-
93.3	19.1	0.3	-22.3	-
94.8	20.0	1.9	-22.5	-
96.6	-	3.0	-	-
97.5	7.6	5.1	-	-
98.8	8.6	5.9	-	-
99.2	11.1	5.7	-	-
100.0	5.9	-	-	-

(1+1) f.t. = 129.8
(1+3) 33.5 tr.t. = -22.6
(3+1) -16.3
(3+2) +30.8

Boron trifluoride (BF_3) + Phosphorus trifluoride (PF_3)

Booth and Walkup, 1943

mol %	f.t.	E
100.00	-151.2	-
95.15	-154.5	-
91.62	-156.0	-
88.82	-159.5	-
84.72	-162.0	-163.5
82.80	-162.7	-163.5
79.86	-163.2	-163.5
77.14	-163.7	-163.7
72.08	-159.5	-
70.51	-157.5	-
63.92	-153.1	-
59.96	-150.7	-
55.95	-148.1	-
53.26	-147.2	-
47.46	-144.4	-
45.02	-143.7	-
42.51	-142.6	-
37.28	-140.8	-
32.75	-139.1	-
26.76	-137.0	-
21.75	-134.9	-
17.48	-133.5	-
12.90	-132.0	-
7.45	-129.8	-
0.00	-127.5	-

E : 78.5 mol %

Boron trifluoride (BF_3) + Thionyl fluoride (F_2OS)

Booth and Walkup, 1943

mol%	f.t.	E	
100.00	-129.0	-	
94.92	130.5	-	
87.57	133.0	-	
82.86	135.5	-	
76.46	139.2	-	
68.15	-	-145.9	
62.13	143.5	-145.9	
59.60	142.5	-	
54.83	140.8	-	
49.85	140.4	-	(1+1)
43.95	141.2	-	
45.62	140.8	-	
40.11	142.1	-	
34.92	143.9	-	
30.26	144.1	-145.4	
25.45	139.2	-	
19.76	135.3	-	
14.73	132.9	-	
10.05	131.3	-	
5.93	129.5	-	
0.00	-127.4	-	

E : 66.0 mol% -145.9°
31.5 mol% -145.4°
(1+1) f.t. -140.8°

Boron trifluoride (BF_3) + Phosphoryl fluoride (F_3OP)

Booth and Walkup, 1943

mol %	f.t.	E
100.00	-39.6	-
95.59	-41.4	-
87.44	-45.6	-
81.42	-43.5	-47.5
79.64	-40.5	-47.7
77.05	-37.5	-
71.88	-33.8	-
65.02	-29.0	-
61.04	-25.6	-
57.27	-23.8	-
0.00	-127.8	-

E : 83.5 mol %

Boron trifluoride (BF_3) + Thiophosphoryl fluoride (F_3PS)

Booth and Walkup, 1943

mol %	f.t.	E
100.00	-148.8	-
95.93	-149.5	-
87.67	-151.5	-
84.90	-	-152.1
82.50	-150.6	-152.1
79.20	-148.2	-152.1
75.71	-145.4	-
71.18	-142.6	-
68.09	-141.2	-
63.29	-139.8	-
58.10	-138.0	-
52.24	-136.1	-
48.80	-135.5	-
41.32	-134.2	-
30.78	-132.8	-
28.17	-132.2	-
22.95	-131.8	-
18.96	-131.2	-
12.75	-130.0	-
7.35	-128.8	-
4.11	-128.2	-
0.00	-127.4	-

E : 84.0 mol %

Boron trifluoride (BF_3) + Nitrous oxide (N_2O)

Booth and Martin, 1942

mol%	f.t.	mol%	f.t.	E
100.0	-91.0	49.9	-116.7	-
100.0	91.1	47.8	118.3	-137.0
95.0	92.3	45.0	121.0	-
92.1	93.7	42.4	122.3	138.1
88.9	94.8	40.2	124.4	138.0
86.9	95.8	37.4	126.1	138.0
84.9	96.9	35.0	128.4	138.1
82.2	97.7	33.6	129.5	-
80.3	98.4	32.5	130.4	138.3
76.0	100.8	29.9	132.9	137.9
74.9	101.2	27.6	135.6	138.0
72.7	102.5	24.6	137.7	-
69.7	104.0	22.9	137.9	138.4
67.3	105.7	19.8	135.8	137.7
65.0	106.7	17.4	134.5	137.0
62.5	108.2	15.3	133.2	137.7
60.0	109.8	12.9	132.3	-
57.5	111.3	10.2	130.0	-
55.0	113.0	5.1	128.7	-
54.9	113.3	5.0	128.5	-
52.0	-115.3	0.0	-126.8	-

Boron trifluoride (BF_3) + Sulfur dioxide (SO_2)

Booth and Martin, 1942

mol%	f.t.	E	mol%	f.t.	E
100.0	-73.5	-	49.9	-96.0	-(1+1)
96.6	74.6	-	47.6	96.2	-
94.5	75.4	-	46.5	96.2	-
92.3	76.5	-	45.3	96.2	-
89.5	77.8	-	42.4	96.4	-
86.8	79.2	-	40.2	97.0	-
84.6	80.8	-	37.5	97.2	-
82.3	81.5	-	35.2	98.4	-
79.9	82.8	-	32.4	99.2	-
77.7	84.7	-	29.5	100.5	-
73.9	86.9	-	27.5	101.4	-
69.7	90.1	-	25.8	102.2	-
68.9	90.8	-	25.0	102.9	-
66.9	92.3	-96.4	22.6	105.0	-
65.0	93.9	97.1	20.2	106.8	-
62.2	96.7	97.1	17.7	109.3	-128.6
60.0	97.0	97.2	15.3	112.8	-
57.4	96.5	97.1	12.6	115.4	-128.6
54.7	96.2	-	10.2	119.2	-129.2
52.7	96.3	-	7.4	124.2	-128.6
50.0	-96.0	-	4.8	128.6	-
			2.8	127.3	-
			0.0	126.8	-
			0.0	-126.7	-

E : 62.0 mol% -97.15°
4.8 mol% -128.60°

Borontrichloride (BCl_3) + Borontribromide (BBr_3)

Joubeau, Richter and Becher, 1955

Raman spectra

32.6	50	63.1
	mol%	
149 (2)	150 (2)	149 (2)
166 (2)	167 (1)	165 (2)
200 (1)	200 (1)	200 (1)
216 (3b)	223 (1b)	216 (3)
253 (3)	257 (0)	253 (3)
277 (1)	277 (5)	279 (0)
310 (0)	310 (0)	296 (?)
344 (4)	345 (7)	344 (4)
407 (6)	408 (7)	407 (7)
466 (5)	469 (0)	469 (6)
605 (0)	601 (0)	600 (?)
-	804 (0)	-
-	817 (0)	-
-	872 (0)	-
902 (0)	-	-
960 (0)	-	-

Boron trichloride (BCl_3) + Boric anhydride (B_2O_3)

Goubeau and Keller, 1951

mol%	f.t.
(1+1)	
10	-40
20	-3
30	+12
40	+20
50	+23-25

Boron tribromide (BBr_3) + Arsenic tribromide ($AsBr_3$)

Adamsky and Wheeler, Jr., 1954 (fig.)

mol%	f.t.	mol%	f.t.
0	-47	50	+10
5.8	-54	60	14
10	-37	70	17
20	-11	80	19
30	-2	90	24
40	+6	100	30

Phosphorus trichloride (PCl_3) + Phosphorus oxychloride ($POCl_3$)

Sokolova, Illarionov and Volkovich, 1952

mol%	p	p_1	p_2
		27°	
85.99	50.67	25.59	21.08
84.48	50.41	28.83	21.58
67.65	75.52	31.96	29.56
67.25	68.73	49.86	18.87
41.50	101.13	89.12	12.01
23.00	112.00	102.51	9.49
22.10	110.80	100.95	9.85
		47.75°	
84.0	99.54	55.43	44.11
83.75	110.40	54.23	56.17
68.25	133.70	91.03	42.67
67.95	138.30	90.75	47.55
42.45	217.24	171.21	36.93
42.0	221.00	179.58	41.42
24.50	226.90	205.97	20.93
23.50	230.40	211.09	19.31
		58.8°	
81.25	167.00	98.88	76.12
80.25	164.90	94.26	70.64
67.75	198.70	137.73	59.97
69.00	200.20	134.85	65.45
67.25	202.60	134.72	67.88
43.00	286.10	255.09	31.01
42.52	290.22	262.02	28.18
24.25	361.00	322.58	38.42
25.00	365.80	324.55	41.25

Phosphorus tribromide (PBr_3) + Arsenic tribromide ($AsBr_3$)

Pushin and Makucz, 1938

mol %	f.t.	m.t.
100	+31	-
96	+30	-
90.5	+28.5	+21
85.5	+26.5	-
80	+24.5	+10.5
64.5	+17.5	- 2.5
56	+12	-10
44	- 3.5	-21
33.5	- 4	-
22.5	-14	-32
0.0	-40	-

Phosphorus tribromide (PBr_3) + Antimony tribromide ($SbBr_3$)

Pushin and Makucz, 1938

mol%	f.t.	E	mol%	f.t.	E
0	-40	-	60	70	-41.5
6	-5.5	-41	66.6	74.5	-42
13.5	+23	-43	68.5	76	-43
19	36.5	-	79	82	-44
23	42	-41.5	83	84	-43
30	51	-40.5	89	86	-
40	59	-41.5	100	94	-
50	65	-41.5			

Phosphorus triiodide (PI_3) + Arsenic triiodide (AsI_3)

Jaeger and Doornbosch, 1911-12

%	f.t.	m.t.	tr.t.	min.
100.0	141.5	-	-	-
91.0	137.1	132.5	-	-
87.2	134.9	127.0	-	-
83.2	132.2	-	69.1	20
81.5	130.8	-	70.5	30
65.4	119.0	-	71.7	110
54.4	109.9	-	72.3	140
36.5	93.4	-	73.7	250
23.6	78.2	70.7	73.0	240
19.3	73.4	66.5	-	-
15.4	70.9	65.5	-	-
13.0	68.75	64.5	-	-
7.8	65.5	62.5	-	-
0.0	61.0	-	-	

Phosphorus triiodide (PI_3) + Antimony triiodide (SbI_3)

Jaeger and Doornbosch, 1911-12

%	f.t.	E	min.
100.0	170.3	-	-
97.3	168.0	-	-
91.4	162.5	53.25	100
89.9	161.55	52.95	-
64.9	138.0	56.30	360
39.6	110.15	56.30	740
16.7	58.3	56.15	900
7.8	-	57.65	920
0.0	61.0	-	-

Arsenic trichloride ($AsCl_3$) + Silicon tetrachloride (Cl_4Si)

Sisler, Pfahler and Wilson, 1948 (fig.)

mol%	f.t.	mol%	f.t.
0	-18	70	-32
20	-25	80	-37.5
30	-26.5	90	-52
40	-27.5	92	-69.5 E
50	-29.5(1+1)	100	-68
60	-30		

(2+1) ? and (3+1) ?

Arsenic trichloride ($AsCl_3$) + Germanium tetrachloride (Cl_4Ge)

Sebba, 1951 (fig.)

t	mol%		t	mol%	
	L	V		L	V
		730 mm			
130	0	0	100	28	72
125	2	17	90	60	88
120	4	30	85	90	96
110	13	56	83.1	100	100
105	19	64			

Arsenic tribromide ($AsBr_3$) + Antimony tribromide ($SbBr_3$)

Pushin and Makucz, 1938 (fig.)

mol%	m.t.	f.t.	mol%	m.t.	f.t.
0	31	31	60	59	71
10	32	37	70	64	76
20	37	45	80	72	81
30	41	51	90	82	86
40	46	59	100	90	90
50	50	65			

Pushin and Löwy, 1926

mol%	f.t.	m.t.	mol%	f.t.	m.t.
0	31	-	60	70.5	58.5
10	36	32.0	70	75.5	64.0
20	44.5	36.0	80	81.0	72.0
30	50.5	42.5	90	86.0	82.0
40	59.0	46.0	100	90.0	-
50	65.0	50.0			

Arsenic tribromide ($AsBr_3$) + Phosphorus pentabromide (PBr_5)

Pushin and Makucz, 1938

mol %	f.t.	m.t.	mol %	f.t.	m.t.
0	31	-	37	58	22
9.6	27.2	-	49	70.5	21
17.5	-	23.5 E	59	78.5	18
21.5	33	23.5	68	85	15
29	48	20	100	107	-

Arsenic triiodide (AsI_3) + Antimony triiodide (SbI_3)

Jaeger and Doornbosch, 1911-12

%	f.t.	m.t.	f.t.	m.t.
	(cooling)		(heating)	
100	170.3	-	170.8	-
76.7	154.75	149	156.5	-
52.4	139.6	136	140.5	135
39.7	135.9	135.5	138.6	135
33.1	135.85	135.5	138.4	135
26.8	135.35	135	139.1	134
13.6	132.2	137	140.1	135.5
0	140.75	-	-	-

Quercigh, 1912

mol%	f.t.	m.t.	mol%	f.t.	m.t.
100	165	-	35	132	128
90	157	150	30	130	128
80	147.5	140	25	131	128
70	143	136	20	132	129
60	141	134	10	133.5	130
50	140	133	0	135.5	-
40	135	130			

Vasiliev, 1912

E : 42.84% 135°

Antimony pentafluoride (F_5Sb) + Antimony pentachloride (Cl_5Sb)

Ruff, 1909

mol%	melting beginn.	melting stop	melting end
0	5	7	7
3.5	-6.5	-6.3	6
17.1	-6.5	-	40-41
20.3	28.5	-	61.5
22.4	48.5	-	-
24.6	68.5	-	80
25.0	78	-	81.5
26.8	67	-	78
27.1	65	-	76-77
28.8	59	65	72.5
32.4	47	-	64
34	26,41,60	63	64
36	25,40	-	56.5
38.5	16.5,24,40	-	47
39	9,24,37	-	40
42	9,24.5	-	39
44	24	-	30
45	9	23.5	23.5
47	24	-	27.5-29.6
50	9,23.6	-	27
51.5	24.5	-	32.5
52	9,23	-	32
54	9,24	-	38
55	24	-	41
56	24	-	46
58	24,(40.5)	-	50.5
60	(25.5),44.5	56	56.5
61	(26).46	57	59
62.3	50	57	65
63.3	55	56.5	68
65	58	-	70
66.7	61	70.8	71
69	70	-	78
70	(65).71	-	77
72	72	-	79
74	72.5	-	79.4,(83.5)
75	73	-	79,(83)
75.5	73	-	79.4,(83)
77	73	-	78.5,(81.5)
77	71	-	79.5,(82.5)
79	70	-	78,(81)
80	66	-	77,(80)
82	67	-	73.5
84	63	65	69
85	-5.5,61	-	66.5
90	-5.5	-5.5	50
92	-3.0,34	-	44
93	-6	-	42
95	-5.8	-4	24
96	-4.4	+4.2	20
97.5	-4.8	-4.0	-2.5
98	-2.7	-	+1
99	-3	+2	+2
100	+2.8	2.8	4

(3+1) (2+1) (3+2) (1+1) (2+3) (1+2)
(1+3)

Trichlorsilane ($HSiCl_3$) + Silicium tetrachloride ($SiCl_4$)

Grady, Chittum and Lyon, 1951

%	d 16°	d 20°	d 23°	d 27°
100.0	1.4887	1.4807	1.4746	1.4662
80.98	.4599	.4519	.4459	.4374
72.21	.4471	.4386	.4328	.4241
61.32	.4315	.4233	.4169	.4084
52.29	.4186	.4104	.4040	.3951
43.52	.4070	.3984	.3921	.3836
36.72	.3968	.3886	.3825	.3740
24.16	.3805	.3733	.3659	.3583
0.0	.3497	.3415	.3350	.3264

Silicium tetrachloride ($SiCl_4$) + Sulfur dioxide (SO_2)

Bond and Stephens, 1929

%	f.t.	%	f.t.
0.0	-69.7	53.13	-5.0
1.12	76.5	54.71	5.1
1.16	77.0	59.15	5.4
1.30	72.4	62.56	6.1
3.97	46.4	66.78	7.0
5.34	38.6	69.33	8.1
5.63	37.5	71.25	9.2
8.10	28.2	76.82	12.9
11.54	20.1	80.66	16.6
14.81	15.1	84.60	22.0
16.88	12.8	87.63	27.5
21.81	8.8	89.73	32.4
23.19	8.2	91.65	38.4
27.93	6.3	93.67	46.6
32.00	5.5	95.31	55.7
37.63	4.9	95.64	57.0
39.28	4.8	97.17	70.2
41.72	4.8	97.42	74.1
43.29	4.8	98.03	79.1
45.95	4.8	98.91	-76.5
47.45	-4.9		

Germanium tetrachloride ($GeCl_4$) + Germanium tetrabromide ($GeBr_4$)

Delwaulle, 1952 (fig.)

%	f.t.	m.t.	%	f.t.	m.t.
0	-50	-	60	-28	-35
20	-50	-52	70	-6	-15
40	-44	-50	100	+26	-

Boric anhydride (B_2O_3) + Silicón dioxide (SiO_2)

Leontieva, 1939

%	η(in poises) 530°	630°	800°
0	13000	2800	260
2	6900	2730	410
5	6000	2000	400
6	7150	2220	420
8.4	15300	4400	565
12	17000	4000	425
18	49500	9300	1400
22	119000	15230	3400

Nitric oxide (NO) + Nitrogen dioxide (NO_2)

Purcell and Cheesman, 1932

t	p	t	p
8.9 mol%		30.2 mol%	
-1.5	1622	-1.2	794
-12.5	1055	-9.7	510
-16.5	600	-19.3	278
-32.4	249	-30.3	146
-47.5	71.5	-42.5	63
50.2 mol%		69.8 mol%	
3.5	675	1.0	412.5
-4.4	431	-7.5	266
-17.0	225	16.4	159
-28.5	112	-27.0	72
-40.0	49.6	-37.5	29.5

Wittorff, 1904

%	f.t.	E	min.
99.9	-10	-	0
91.2	-18	-115.25	70
82.9	-31.7	-113.75	170
80.0	-37.7	-115.25	190
71.0	-73.0	-113.75	295
63.6	-108.5	-112	240
61.3	-104.5	-	-

Whittaker, Sprague and al., 1952

%	f.t.	%	f.t.
100	-11.30	89.33	-23.51
97.11	-14.11	85.89	-28.81
94.45	-17.06	83.15	-33.61
91.70	-20.40		

Reamer, Richter and Sage, 1954

P Kg	η 20%	15%	10%	5%	0%
			4.5°		
Bubble point	(2.1)[a] 496	(2.0) 472	(1.9) 461	(1.5) 468	(0.46) 490
14	498	476	466	473	494
28	500	480	470	476	497
42	503	483	474	480	502
56	506	486	477	483	504
70	507	488	482	487	505
87.5	512	494	487	492	510
105	514	496	491	497	514
122.5	519	502	496	502	518
140	522	506	500	506	522
157.5	527	512	506	510	526
175	531	514	509	514	529
192.5	536	519	513	518	534
210	538	522	517	522	537
			38°		
Bubble point	(6.0) 326	(5.6) 312	(5.0) 307	(4.2) 312	(2.2) 332
14	330	320	310	320	334
28	330	320	310	320	334
42	334	320	317	324	341
56	336	323	320	327	343
70	338	326	322	330	345
87.5	341	330	326	332	348
105	344	333	328	335	351
122.5	347	335	331	339	354
140	350	338	335	342	356
157.5	352	340	337	344	358
175	355	344	340	348	362
192.5	356	350	342	350	364
210	358	358	344	352	366
245	363	351	348	356	370
280	369	354	350	358	374
315	376	360	355	362	378
350	384	366	358	366	382
			71°		
Bubble point	(18.9) 211	(16.8) 207	(14.3) 208	(11.4) 209	(7.8) 217
14	-	-	-	210	220
28	220	210	210	210	220
42	220	210	210	218	223
56	220	218	218	220	226
70	222	220	221	224	228
87.5	225	224	224	226	231
105	227	226	227	229	234
122.5	230	228	229	232	236
140	232	231	232	234	238
157.5	234	232	233	236	240
175	236	235	236	238	243
192.5	239	237	237	240	246
210	242	240	241	244	248
245	247	246	246	247	254
280	252	249	249	250	258
315	257	254	253	254	260
350	262	258	256	257	262

104.5°

Bubble point	(49.3) 122	(42.9) 118	(36.3) 119	(29.8) 122	(23.4) 132
28	-	-	-	-	140
42	-	-	124	131	142
56	128	128	131	137	148
70	132	134	138	144	154
87.5	136	138	143	151	160
105	140	142	148	155	165
122.5	144	146	152	160	168
140	148	150	156	163	172
157.5	151	153	158	166	174
175	152	155	159	166	176
192.5	156	160	162	169	178
210	159	162	164	170	180
245	163	164	168	174	182
280	168	169	172	178	185
315	174	174	176	182	188
350	179	178	178	183	190

138°

Bubble point	(110.4) 16	(97.6) 16	(84.4) 20	(72.1) 34	(60.7) 57
70	-	-	-	-	63
87.5	-	-	22	41	71
105	-	18	29	49	80
122.5	22	26	36	58	88
140	27	32	45	65	94
157.5	34	40	52	72	99
175	39	45	57	77	104
192.5	45	52	64	83	109
210	50	56	69	88	112
245	62	69	81	98	117
280	75	80	91	104	121
315	88	92	100	111	125
350	98	101	108	116	128

a - figures in brackets represent bubble point pressures.

Nitrogen dioxide (NO_2) + Nitrous anhydride (N_2O_3)

Baume and Robert, 1919

t	p					
	0%	20%	40%	60%	80%	100%
-24	70	110	170	268	460	865
-16	108	168	260	409	685	1250
-8	172	262	398	623	1018	1785
0	266	400	600	925	1475	2480
+8	396	590	882	1331	2072	3360
+16	598	860	1270	1857	2825	4430
+20	684	1040	1520	2130	3260	5000

%	f.t.	%	f.t.
0	-11.5	51.9	-41.5
10.9	15.6	53.4	43.0
18.9	19.9	59.7	50.0
20.2	20.5	73.4	75.0
23.5	22.0	80.1	92.0
30.4	26.0	86.3	107.0
33.8	27.1	91.8	107.0
37.6	31.0	97.0	100.0
42.9	34.0	100.0	-100.0
45.9	-37.5		

Nitrogen dioxide (NO_2) + Nitric anhydride (N_2O_5)

Lowry and Lemon, 1935

%	f.t.	E
0	-10	-
4.29	-11.8	-
8.76	-14.3	-
11.86	-16.3	-15.8
16.12	(-18.2)-10.1	-15.8
19.46	(-19.1)- 6.4	-15.6
29.31	(-23.2)+1.1	-15.7
39.86	+8.0	-15.8
50.05	+12.9	-15.7
60	18.5 ±1	-
70	24.5 "	-
80	30.0 "	-
90	35.0 "	-
100	40.0 "	-

Nitrogen dioxide (NO_2) + Nitric acid (NO_3H)

Corcoran, Reamer and Sage, 1954

P Kg	d 71.1°	d 121.1°	d 171.1°
Bubble point	(119.0)[a] 1.57[b]	(134.1) 1.345	(162.7) 1.168
		95 %	
140	1.47	1.345	-
210	1.47	1.355	1.185
250	1.48	1.368	1.213
Bubble point	(62.6) 1.47	(83.8) 1.328	(132.7) 1.124
		85 %	
70	1.47	-	-
175	1.48	1.346	1.144
350	1.51	1.366	1.182
Bubble point	(15.8) 1.47	(46.5) 1.278	(105.5) 1.059
		70 %	
70	1.48	1.34	-
105	1.48	1.34	1.06
210	1.51	1.34	1.14
350	1.54	1.46	1.14
Bubble point	(8.6) 1.43	(34.8) 1.193	(99.7) 0.979
		50 %	
70	1.47	1.212	-
105	1.48	1.230	0.984
210	1.52	1.271	1.054
350	1.54	1.299	1.101

a : Figures in bracketts represent bubble point pressures

b : Density at bubble point .

Klemenc and Rupp, 1930

%	p_2
12.5°	
99	5.02
98	8.97
97	11.32
95	14.36
90	16.19

%	p 0°	p 12.5°	p 25.0°
100	15.9	31.5	62.1
99	19.0	37.2	71.5
98	21.0	42.5	81.5
97	22.8	46.1	88.4
96	24.0	48.9	93.5
95	25.2	51.0	97.9
94	26.1	52.2	100.5
93	27.0	53.6	103.4
92	27.5	53.6	106.0
91	28.0	54.7	108.5
90	28.5	55.8	111.2
89	28.9	57.0	114.2
88	29.3	58.2	118.0
87	30.0	59.7	122.3
86	30.4	61.5	127.4
85	31.5	63.5	133.1
84	32.0	65.8	139.0
83	33.3	68.5	145.7
82	34.4	71.5	152.6
81	36.0	74.8	160.0
80	37.5	78.5	167.5
79	39.2	82.5	176.0
78	41.8	87.3	184.5
77	43.7	92.1	193.5
76	46.5	97.5	203
75	49.2	103.4	213
74	52.3	109.8	224
73	55.8	116.5	235
72	59.2	123.8	248
71	63.3	131.7	261
70	67.5	140.0	275
69	72.0	149.0	290
68	76.0	158.5	306
67	82.5	168.7	325
66	88.3	179.6	345
65	94.3	191.5	367
64	100.5	204	391
63	107.4	217	461
62	114.5	231	441
61	122.0	245	469
60	129.5	259	496
59	137.5	273	524
58	145.5	288	551
57	153.5	302	579
56	162.5	317	605

Bousfield, 1919

t	% L_1	% L_2
4	4.90	54.4
11	6.67	54.3
18	8.05	54.0

Pascal and Garnier, 1919

%		b.t.
L	V	
	762.5 mm	
100	100	78.5
95	37	65
89	17	55
73	0	33
0	0	22

sat.t.	%	sat.t.	%
L_1		L_2	
-11.0	52	-13.25	2.75
-0.8	50	-5	4.20
+15	45	+5	5.20
20	44.3	19.5	7.15
35	37.5	40	10.0
50	30	55	20.0

C.S.T.: 22.5% 56°

Klemenc and Spiess, 1947

wt%	mol%	sat.t.	wt%	mol%	sat.t.
47.88	40.15	-33	32.66	25.91	+61.0
47.00	39.31	-12	23.17	18.03	+58.5
47.16	39.39	-2.7	20.37	15.74	+56.5
45.65	37.70	+27.5	13.21	10.06	+43.6
43.95	36.47	+48.5	11.50	8.67	+35.4
39.12	31.84	+57.6	9.61	7.14	+26.6
37.97	30.94	+59.7	5.17	4.07	+4.7
37.67	30.77	+59.0	5.16	3.90	+6.4
34.72	28.19	+60.1	3.63	2.74	-6.5
32.75	26.20	+60.9	2.48	1.86	-21.8

Pascal and Garnier, 1919

%	f.t.	E (or tr.t.)	min.
100	-42	-73	5
90.6	-58.5	-73	8
85.0	-70	-73	10
82.0	-73	-73	5
70.0	-58.5	-73	2
64.0	-48.5	-48.5	-
62.0	-32	-48.5	-
60.0	-21.4	-48.5	-
53-2.75	-13.75	-48.5	-
0.0	-10.2	-48.5	-

(1+1)

Elverum and Mason, 1956

mol%	f.t.	mol%	f.t.	
100	-41.7	56.92	-47.1	
93.66	43.1	54.79	45.7	
91.26	43.8	54.04	45.5	
88.12	45.2	52.00	45.4	
87.48	45.4	51.24	39.0	
80.66	49.5	50.16	45.3	
80.32	49.9	49.78	37.1	
77.36	52.4	49.34	45.6	
74.26	55.6	47.60	37.6	
71.42	59.3	47.34	37.6	
70.64	60.2	46.70	34.0	
68.44	64.5	44.00	26.9	
66.36	59.8	41.62	18.6	
65.16	55.4	40.74	16.4	
62.70	51.9	32.75	12.6	
61.25	50.0	3.00	12.7	$L_1 + L_2$
59.71	49.5	1.76	12.5	
59.54	49.2	1.24	12.2	
58.76	48.8	0.64	12.0	
58.16	48.4	0.40	11.7	
57.84	-47.7	0.00	-11.2	

Pascal and Garnier, 1919

%	d				
	5°	11°	15°	19°	
7.0	-	-	-	1.450	
6.5	-	-	1.462	-	
6.0	-	1.470	-	-	
5.2	1.483	-	-	-	
0.0	.479	.4665	.458	.450	
	0°	15°	20°	23°	30°
100	1.5300	1.5130	1.5030	1.4985	1.4870
99.84	-	.5135	-	-	-
97.80	-	.5205	-	-	-
94.80	-	.5330	-	-	-
91.0	-	.5495	-	-	-
87.5	.5910	.5650	.5560	-	-
84.0	-	-	-	.560	-
76.44	-	.6057	-	-	-
73.5	.630	-	.598	.592	.578
70.7	-	.6140	-	-	-
70.0	-	-	-	-	.585
64.0	.642	.627	.616	.610	-
60.0	-	-	-	-	.595
55.8	-	.630	-	-	-
55.5	-	-	.618	-	-
55.0	.650	-	-	.6125	-
51.89	.650	-	-	-	-
49.29	-	-	-	.601	-
48.96	-	.627	-	-	-
48.0	-	-	.614	-	-
45.0	-	-	.6075	-	-
44.27	-	.6186	-	-	-

Klemenc and Rupp, 1930

%	d 0°	d 12.5°	d 25.0°
100	1.5472	1.5245	1.5018
99	.5511	.5285	.5062
98	.5549	.5323	.5105
97	.5596	.5362	.5150
96	.5626	.5402	.5193
95	.5667	.5443	.5235
94	.5707	.5482	.5276
93	.5747	.5528	.5320
92	.5787	.5564	.5361
91	.5827	.5603	.5403
90	.5867	.5646	.5443
89	.5907	.5685	.5486
88	.5947	.5725	.5525
87	.5987	.5765	.5566
86	.6027	.5806	.5606
85	.6069	.5847	.5645
84	.6109	.5887	.5683
83	.6149	.5928	.5722
82	.6190	.5970	.5760
81	.6233	.6011	.5800
80	.6274	.6054	.5838
79	.6314	.6093	.5872
78	.6353	.6132	.5910
77	.6389	.6172	.5947
76	.6425	.6207	.5982
75	.6462	.6244	.6015
74	.6494	.6278	.6047
73	.6522	.6310	.6077
72	.6550	.6340	.6106
71	.6577	.6366	.6134
70	.6601	.6393	.6160
69	.6613	.6414	.6181
68	.6643	.6433	.6200
67	.6660	.6450	.6216
66	.6675	.6464	.6232
65	.6691	.6478	.6245
64	.6702	.6486	.6253
63	.6711	.6495	.6264
62	.6718	.6500	.6268
61	.6723	.6504	.6272
60	.6725	.6505	.6273
59	.6727	.6508	.6270
58	.6727	.6503	.6265
57	.6726	.6498	.6257
56	.6722	.6492	.6249
55	.6717	.6486	.6238
54	.6707	.6477	.6225
53	.6697	.6467	.6212
52	.6687	.6454	.6196
51	.6675	.6443	.6176
50	.6662	.6430	.616
49	.6647	.6415	.614
48	.6632	.6398	.612
47	.6617	.6378	.610
46	.6597	.6354	.608
45 satd.	.6570	.633	.605

Bousfield, 1919

%	d 4°	d 11°	d 18°
100	1.5381	1.5254	1.5125
98.7832	.5442	.5312	.5185
91.979	.5684	.5574	.5452
83.12	.6033	.5918	.5803
73.91	.6335	.6219	.6099
65.075	.6544	.6424	.6301
62.40	.6584	.6479	.6339
57.99	.6636	.6510	.6381
56.29	.6644	.6517	.6386
53.30	.6642	.6512	.6377
51.34	.6636	.6501	.6361
50.04	.6626	.6491	.6351
48.63	.6610	.6487	.6319
46.90	.6572	.6427	.6277
6.14	-	-	.4574
3.51	.4858	.4699	.4538
1.51	.4843	.4684	.4523
0	.4829	.4669	.4506

Nitrogen dioxide (NO_2) + Nitrosyl chloride (NOCl)

Addison and Thompson, 1949 (fig.)

%	f.t.	m.t.	%	f.t.	m.t.
0	-10	-10	59.3	-74.5	-74.5
10	15.5	23	70	68	74.5
20	22	38.5	74	66	74.5
30	30	67	80	65	70
32	32	74.5	90	62	65
40	39.5	74.5	100	-60.5	-60.5
50	-51	-74.5			

Nitrogen dioxide (NO_2) + Sulfur dioxide (SO_2)

Terres and Constantinescu, 1934 (fig.)

%	f.t.	%	f.t.
100	-71	45	-25
93	-73	40	-20
90	-72.5	35	-19 and -23
80	-69	30	-19 and -22
70	-65.5	25	-19 and -20
60	-62	20	-18
55	-58	10	-13
50	-35	0	- 9

Nitric anhydride (N_2O_5) + Nitric acid (HNO_3)

Berl and Saenger, 1930

t	p 100 %	p 14.07 %	p 12.36 %	p 11.19 %
0.0	14.0	15.3	-	18.5
5.0	19.6	21.7	24.2	26.2
10.0	26.5	28.4	31.8	36.8
15.0	35.5	38.3	41.4	51.8
20.0	47.3	51.2	55.5	73.0
25.0	61.0	64.3	75.0	103.0
30.0	77.4	77.3	99.8	178.4
35.0	-	95.5	138.0	265.8
40.0	-	120.1	197.0	-

t	p 10.76 %	p 10.33 %	p 9.90 %
0.0	22.9	34.8	50.0
5.0	34.3	49.8	72.0
10.0	47.4	71.0	103.8
15.0	67.2	102.0	157.0
20.0	96.0	156.7	241.0
25.0	142.0	226.0	323.0
30.0	213.7	422.7	464.0
35.0	-	-	692

%	p	%	p
	0.0°		
12.56	17.1	11.19	18.5
11.78	17.9	10.76	22.9
11.39	18.1	10.02	42.6
	5.0°		
11.78	24.2	10.81	34.3
11.39	26.2	10.33	49.8
	10°		
12.56	29.2	11.35	36.8
11.78	31.8	10.33	71.0
11.56	33.5	10.02	87.3
	15°		
13.11	39.3	11.19	51.8
12.36	41.4	10.76	67.2
11.78	45.1	10.33	102.0
11.56	47.2		
	20°		
12.95	55.5	10.76	96.0
11.78	64.4	10.33	156.7
11.19	73.0		
	25°		
12.95	71.0	11.19	103.0
12.36	75.0	10.76	142.0
11.78	79.8	10.33	226.0

%	b.t.	%	b.t.
12.95	65	11.19	48.5
12.56	63	10.81	45.5
12.23	60.5	10.76	44.5
11.78	55.5	10.33	37.5
11.56	52.5	9.90	35.5

%	f.t.	%	f.t.
13.11	-43	11.35	-62
12.56	-46	10.97	-69
12.36	-48	10.92	-68
11.94	-53.5	10.49	-56
11.87	-54.5	10.02	-45
11.56	-57	9.90	-42
11.40	-61		

%	d	%	d
	15°		
14.02	1.530	11.78	1.595
12.95	.553	11.56	.605
12.40	.571	11.35	.612
12.36	.572	10.76	.630
12.07	.582	10.02	.643
11.96	.588	9.90	.645
11.83	.593		

Lee and Millen, 1956

M*	d	κ	M*	d	κ
		-10.02°			
0	1.564	368	0.4156	1.569	468
0.0850	-	385	0.4288	-	477
0.0976	1.5652	-	0.5033	-	498
0.1018	-	390	0.5224	1.571	500
0.1024	1.565	390	0.5502	-	505
0.1991	1.5663	-	0.5981	1.5736	-
0.2057	1.566	415	0.6304	1.574	535
0.2109	-	413	0.7061	-	570
0.3082	-	441	0.7262	1.5757	-
0.3103	1.568	441	0.7400	1.576	574
0.3893	-	455	1.279	-	725
0.4001	1.5694	-	1.8297	1.6116	-
0.4130	-	468	1.880	-	817
		-20.01°			
0	1.582	340	0.4544	1.584	438
0.1505	1.582	366			

* M = molarity of N_2O_5

Pacault and Chédin, 1950

%	χ	%	χ
95.8	0.317	82.7	0.317
90.67	0.314	78.6	0.315
86.5	0.315	77.5	0.313

Berl and Saenger, 1930

%	U	%	U
14.29	0.409	11.56	0.389
13.29	.390	11.34	.392
13.11	.387	10.97	.407
12.23	.382	10.76	.415
11.94	.385	10.49	.419
		10.02	.422

Sulfur dioxide (SO_2) + Ammonium iodide (NH_4I)

Foote and Fleischer, 1931

t	p	t	p	t	p
L+V+(3+1)		V+NH_4I+(3+1)		L+V+NH_4I	
-24.40	365	-21.50	255	-13.85	482
23.05	390	20.00	282	12.35	523
19.35	456	18.05	326	10.45	574
16.10	513	16.80	357	7.20	681
13.45	556	14.90	411	5.45	743
12.25	576	12.70	476	2.65	855
11.25	591	10.70	545	0.00	976
10.20	606	9.15	612		
9.00	620				

L+V+NH_4I+(3+1): -8.8°

Sulfur dioxide (SO_2) + Sulfuric acid (H_2O_4S)

Dunn, 1882

t (°c)	adsorpt. coeff.	t (°c)	adsorpt. coeff.
11.1	33.78	42.0	12.82
16.1	28.86	50.9	9.47
17.0	28.14	62.3	7.21
26.9	19.27	84.2	4.54

Sulfur trioxide (SO_3) + Nitric acid (NO_3H)

Amelin and Borodastova, 1949

wt%	mol%	m.t.	f.t.
0	0	16.8	16.8
9.7	12.1	18.3	30.2
10.1	12.6	18	25.5
22.2	26.4	-	58.2
23.8	28.96	-	86.5
27.4	31.87	-	106.5
89.8	91.8	-	-59

Sulfur trioxide (SO_3) + Chlorsulfonic acid ($ClHO_3S$)

Balton and Adam, 1948

mol %	p	mol %	p	mol %	p
		15°			
0	130	22.5	96.7	45.0	26.5
4.5	109	33.3	77.0	60.3	10.5
14.0	122	35.6	79.5	63.3	12.8
14.6	117.5	37.5	46.8	78.1	4.1
16.1	126	42.8	30.3	100.0	0.0
18.2	119				

Sulfuric oxychloride (SO_2Cl_2) + Phosphorus oxychloride ($POCl_3$)

Luchinskii and Likhacheva, 1935 and 1938

b.t.	% L	% V	b.t.	% L	% V
104.0	100.0	100.0	80.0	47.1	26.9
99.2	90.3	83.8	77.3	40.0	21.3
94.4	80.0	67.6	71.6	20.0	9.5
85.6	60.0	38.8	70.0	9.7	3.6
81.4	50.6	30.1	69.4	0.0	0.0

%	f.t.	%	f.t.
100.00	+1.3	55.84	-38.2
96.44	-1.0	51.89	-43.6
89.68	-5.5	48.84	-47.6
86.30	-8.0	46.80	-50.2
85.99	-8.2	41.22	-56.9
83.84	-9.8	35.40	-64.1
81.64	-11.4	31.66	-69.1
81.12	-11.8	28.91	-72.5
79.02	-13.1	27.61	-73.8
76.17	-15.4	24.72	-71.8
72.94	-18.1	17.25	-66.8
68.78	-22.1	8.67	-60.8
64.16	-27.5	2.33	-55.9
59.78	-32.9	0.00	-54.1

%	d 15°	20°	25°	30°	35°
100	1.6840	1.6749	1.6656	1.6564	1.6472
80	.6804	.6699	.6618	.6525	.6438
60	.6771	.6682	.6600	.6514	.6430
40	.6753	.6681	.6597	.6510	.6427
20	.6756	.6678	.6591	.6499	.6405
0	.6767	.6667	.6560	.6462	.6356

%	η 15°	20°	25°	30°	40°
100	1209	1137	1077	1024	972
80	1198	1129	1082	1030	989
60	1145	1099	1054	1004	964
40	1082	1031	992	957	912
20	1010	953	908	888	848
0	894	857	820	787	753

Nitric acid (HNO_3) + Sulfuric acid (H_2O_4S)

Holmes, 1920

%	f.t.	%	f.t.
100	+10.0	81.50	-1.4
96.24	-2.2	82.77	1.5
93.73	-18.2	81.68	1.6
91.95	-15.1	78.78	5.1
89.33	-0.7	74.06	11.5
88.67	+2.3	68.87	19.0
86.93	+2.0	58.83	40.0
84.93	+1.0	48.95	-50.0
84.85	+1.4		

Pascal and Garnier, 1919 and Pascal, 1919

%	t	d	t	d	t	d
98.0	-	-	15	1.8390	-	-
95.0	4	1.8617	20	.8446	38	1.8339
92.0	4	.8617	20	.8446	38	.8339
90.0	5	.8720	10	.8610	28	.8490
85.0	3	.8830	16	.8690	27	.8570
78.0	4	.8728	15	.8600	31	.8413
72.0	4	.8637	26	.8363	36	.8328
56.0	5	.814	14	.8014	30	.7790
49.0	4	.7608	26	.7292	35	.7162
41.0	4	.7315	15	.7150	25	.6925
35.0	5	.7154	25	.6846	35	.6693
25.0	4	.6723	15	.6551	30	.6313

%	d	%	d
	15°		
98.0	1.8390	49.0	1.7450
95.0	.8500	41.0	.7150
92.0	.8600	35.0	.7000
90.0	.8620	25.0	.6550
85.0	.8700	20.0	.6280
78.0	.8600	10.6	.6000
72.0	.8500	6.6	.5500
66.0	.8000		

Klimova and Saslavski, 1949 and
Usoltseva, Klimova and Saslavski, 1952

mol%	wt%	d	mol%	wt%	d
		20°			
100.00	100.00	1.8305	46.71	57.70	1.7841
93.66	95.83	.8572	43.74	54.75	.7735
87.49	91.59	.8759	38.87	49.75	.7548
81.50	87.27	.8790	34.14	46.65	.7349
75.67	82.87	.8690	29.51	39.45	.7136
71.11	79.30	.8592	24.99	34.14	.6913
66.65	75.67	.8471	20.58	28.74	.6672
63.37	72.92	.8377	16.27	23.22	.6422
60.14	70.14	.8281	12.06	17.59	.6166
56.96	67.32	.8185	7.95	11.85	.5866
53.83	64.47	.8087	3.93	5.99	.5538
50.75	61.59	.7981	0.00	0.00	.5130

Swinarski and Dembinski, 1956

mol%	d	mol%	d
	15°		
100	1.836	77.3	1.869
94.95	.865	73.7	.867
90.10	.876	67.1	.853
85.40	.876	61.1	.841
79.33	.873	56.3	.821

Bingham and Stone, 1923

%	η 10°	η 20°	η 40°
0.00	1037	877.0	680.6
12.50	2415	1910	1319
25.00	3418	2639	1689
37.50	12900	8658	4975
50.00	18500	12100	6644
62.50	38500	27000	12000
75.00	55600	35100	15900
87.50	64500	39200	18300
100.00	33300	22200	12700

Rhodes and Hodge, 1929

%	η 0°	η 25°	η 50°	η 75°
0	1100	750	550	400
10	2000	1500	900	700
20	5000	2000	1500	1000
30	9000	4000	2200	1500
40	15000	6000	3100	2000
50	28000	10000	4900	2900
60	46500	15000	7000	3900
70	70000	22000	8200	5000
80	98500	29000	12000	6200
88	110000	33000	13600	7100
90	100000	32000	13500	7100
97	62000	23000	10400	6000
100	63000	24000	10400	5800

Swinarski and Dembinski, 1956

mol%	η	mol%	η
	15°		
100	37200	77.3	56100
94.95	38800	73.7	52100
90.10	43800	67.1	44800
85.40	54500	61.1	38500
79.33	56400	56.3	32400

mol%	κ	mol%	κ
15°			
100	1.56	54.3	4.87
97.7	4.23	44.92	4.85
90.7	7.35	34.5	4.88
87.6	6.78	25.3	4.92
81.8	6.35	15.5	4.96
75.2	5.75	12.3	4.80
70.4	5.31	8.2	4.36
64.95	5.16	5.0	3.64
59.96	4.92	0.0	2.31

Pacault and Chédin, 1950

%	χ	%	χ
100	0.406	25	0.347
89	.405	22	.342
81	.400	15	.333
74	.393	12	.332
67	.388	11	.332
53	.373	8	.330
40	.360	6	.326
38	.358	5	.325
34	.357	0	.316

Pascal and Garnier, 1920

%	U	%	U
20°			
22.7	0.430	82.2	0.354
41.5	.402	90.1	.344
55.8	.385	100.0	.335
70.3	.370		

Nitric acid (HNO_3) + Phosphoric acid (H_3O_4P)

Danilov, Matveiev and Buchgalter, 1940

mol%	p	mol%	p
0.1	45.0	54.3	25.6
7.0	45.9	65.7	21.5
17.5	42.8	78.5	12.1
26.0	40.2	91.5	7.0
38.5	34.9		

Sulfuric acid (H_2SO_4) + Selenic acid (H_2SeO_4)

Kapustinski and Jdanova, 1951

%	f.t.	%	f.t.	%	f.t.
H_2SeO_4		$H_2SeO_4.H_2O$		$H_2SeO_4.4H_2O$	
0	10.3	0	9.5	0	-28.8
8.79	7.2	13.8	8.5	11.27	30.7
11.05	5.5	26.41	7.0	24.3	32.5
21.82	6.3	37.65	5.0	31.41	33.6
31.85	13.3	48.17	8.0	47.02	37.1
41.92	21.3	56.90	10.6	56.09	38.8
50.09	27.3	63.41	12.6	65.59	41.0
58.65	32.4	76.26	15.6	74.35	43.3
66.27	38.5	85.39	19.0	83.24	45.7
76.48	44.5	91.01	21.6	88.38	47.6
87.20	49.9	100.00	24.0	100.00	-50.5
100.00	56.0				

Sulfuric acid (H_2SO_4) + Chlorsulfonic acid (HSO_3Cl)

Palm, 1956

mol%	-lg h_o	mol%	-lg h_o
0	-10.89	69.8	-12.06
4.1	10.98	81.0	12.21
11.1	11.25	88.2	12.37
24.8	11.48	95.0	12.42
37.9	11.61	97.5	12.55
54.6	-11.78	100.0	12.78

h_o = acidity ion concentration

Sulfuric acid (H_2SO_4) + Nitratopyrosulfonic acid (HNO_9S_2)

Borodastova, 1949

%	f.t.	m.t.	%	f.t.	m.t.
0	+10	+10	44.25	+28	-
9.27	+8	+4	53.52	53	42
18.88	+2	-1.5	62.71	66.5	61
30.05	-6.5	-10	71.07	76	70
40.48	-16.5	-24			

Sulfuric acid (H_2SO_4) + Ammonium sulfate ($H_8O_4N_2S$)

Kendall and Landon, 1920

mol %	f.t.	mol %	f.t.
0.0	+10.4	6.44	- 8.5
1.69	+ 6.2	8.36	-16.3
3.47	+ 1.3	9.41	-20.7
5.39	- 5.0	10.48	-26.7
	(3+1)		
9.41	-20.7	18.14	+35.1
10.10	-13.1	20.67	+42.7
11.48	- 3.9	23.12	+46.9
12.36	+ 5.3	25.24	+47.9
13.14	+10.5	27.88	+45.8
14.33	+17.6	30.41	+39.8
16.21	+26.7		
	(x+1)		
27.98	- 2.6	30.33	+21.4
28.69	+ 4.8	30.41	+22.0
29.62	+16.0	30.87	+26.1
	(1+1)		
31.21	+32.9	42.47	+126.4
31.63	39.4	45.18	136.8
32.65	53.5	46.82	141.1
33.48	63.1	47.60	142.6
35.06	79.8	48.08	144.9
36.19	89.1	49.95	146.9
37.31	97.4	51.84	144.1
39.13	109.5	53.08	141.7
40.67	120.8	54.27	137.2
41.81	124.3		
	(1+y)		
63.45	+269.2	67.37	+318.0
63.98	+281.5		
	(1+2)		
55.05	+147.2	59.78	+210.2
55.43	151.7	60.62	218.5
56.17	159.3	61.64	229.2
57.18	176.7	62.38	232.0
57.98	187.7		

Wasif, 1955

m	transport number cation	anion
	25°	
0.4766	0.031	0.030
0.7836	0.036	0.031
0.9780	0.034	0.040

Cambi and Bozza, 1923

wt%	mol%	f.t.	tr.t. 1	tr.t. 2	
8	6	-7.5	-	-	
10.60	8.09	-15.5	-21.1	-	
30.99	25.09	+47.0	-	-	
35.18	28.71	43.4	-	-	(3+1)
37.60	30.90	37.8	+35.35	-	
40.25	33.33	62.2	-	-	
44.64	37.34	97.9	-	-	(1+1)
50.06	42.67	125.0	-	-	
53.71	46.27	137.0	-	-	
57.09	49.68	144.4	-	-	
57.57	50.04	144.0	-	-	
59.83	52.51	140.6	111	-	
61.21	53.94	134.9	111.6	133.8	
62.28	55.07	146.0	111.2	134.0	
64.22	57.12	175.0	110	-	
67.82	61.00	219.0	110	135.0	
70.32	63.75	278.0	-	230	

Sulfuric acid (O_4H_2S) + Ammonium acid sulfate (H_5NO_4S)

Gillespie and Wasif, 1953

m	d	η
	25°	
0.0964	1.8306	24620
.3741	.8323	23920
.6566	.8348	23930
.9245	.8391	24420
1.3000	.8437	24860

Chlorsulfonic acid ($ClHO_3S$) + Pyrosulfuryl chloride ($Cl_2O_5S_2$)

Sanger and Riegel, 1912

%	b.t.	dew point	f.t.	m.t.
100	153	152.5	-37.5	-37
99	153	151	41	36
95	153	143	42	37
91	147	142	41	38
82	141	139	43	39
70	140	139	45	39
52	153	133	47	43
37	153	135	50	47
25	153	139	57	53
11	153	137	66	61
4	153	142	-	-
0	152	151	-81	-80

Pyrosulfuric acid ($H_2S_2O_7$) + Chlorsulfonic acid ($ClSO_3H$)

Luchinskii, 1940 (fig.)

mol%	f.t.	mol%	f.t.
100	-80	50.0	+2.6 (1+1)
83.89	-112.6 E	40.0	-17
80.0	-87	36.64	-38.8 E
66.67	+3.1(1+2)	20.0	+8
60.0	-2	0.0	+35
55.39	-15.4 E		

mol % L	mol % V	b.t.
0	0	75
42	1	80
62	7	90
72	14	100
79	27	110
85	40	120
90	53	130
95	72	140
100	100	153

Orthophosphorous acid (H_3PO_3) + Orthophosphoric acid (H_3PO_4)

Rosenheim, Stadler and Jacobsohn, 1906

mol%	f.t.	mol%	f.t.
0	76.3	54.5	+3.0
9.1	65.8	61.0	-13.0 E
21.5	53.7	62.5	-10.5
31.5	42.4	68.8	+1.5
38.9	31.1	81.8	+21.0
43.7	23.8	91.5	+30.3
49.6	13.2	100.0	+35.0
50.0	12.7		

Orthophosphoric acid (H_3PO_4) + Mono ammonium orthophosphate (H_6NO_4P)

Parravano and Mieli, 1908

% (1+1)	sat.t.	% (1+1)	sat.t.
41.85	33.0	82.63	77.5
46.94	43.1	84.69	80.5
53.54	50.2	89.06	91.0
69.73	67.9		

Ammonium chloride (ClH_4N) + Ammonium bromide (BrH_4N)

Rassow, 1920

mol %	m.t.	f.t.
0	520	520
15	517	518
25	514	515
35	511	512
50	518	521
85	536	537
100	542	542

Mandleberg and Staveley, 1950

mol%	tr.t. expansion heating	tr.t. expansion cooling	tr.t. contraction heating	tr.t. contraction cooling
0.0	-30.9	-30.6	-	-
1.3	-32.3	-32.0	-	-
3.5	-35.0	-34.5	-	-
8.5	-58	-40.6	-34.6	-34.0
11.6	-76.5	-60.9	-29.1	-27.9
15.4	-	-	-22.6	-21.3
21.3	-	-	-16.4	-16.4
59.8	-	-	-4.0	-3.6
84.8	-	-	-19.4	-19.3
100.0	-	-	-38.8	-38.7

Stephenson and Adams, 1952

mol%	tr.t.	mol%	tr.t.
0	-30.9	37.6	-3.7
1.2	-33.7	64.4	-6.2
3.5	-38.9	81.1	-17.8
9.0	-70.2 to -55.7	89.6	-26.4
9.0	-32.1	95.6	-33.2
19.3	-16.5	100.0	-38.6

Ammonium chloride (NH_4Cl) + Ammonium nitrate ($H_4N_2O_3$)

Perman and Saunders, 1923

%	f.t.	%	f.t.
100	169.6	90.0	146.3
98.22	165.3	87.9	141.7
96.0	159.3	86.68	150.3
93.0	152.8	85.55	162.0
90.5	147.2	84.46	173.5

E : 141

Perman, 1922

%	f.t.	%	f.t.	E
100	169	89.0	143.2	140.7
98.1	164.9	87.9	140.9	141.1
97.0	165.5	87.8	141.2	141.3
95.6	158.8	87.0	146.5	141.4
94.0	155.2	86.0	155.6	141.0
91.9	150.2	85.5	162.9	140.9
91.0	147.6	85.1	170.6	-
90.0	146.0			

Bowen , 1926

%	f.t.	m.t.	tr.t.
100	169	169	125.5
98.5	165.5	-	109
97	162	157	109
96	159.5	153	109
95	158	151	109
94	155	148	109
93	153	-	109
92	150.5	141	109
90	146.5	141.5	109
87	146	141	109
86	154	141.5	109

Jänecke, 1928 (fig.)

mol%	f.t.	E	mol%	f.t.	E
		I			
100	170	-	80	150	141
95	160	-	75	162	"
90	152	-	70	175	"
88	149	141	68	184 tr.t.	"
83.5	141	141			

mol%	f.t.	E	f.t.	E	f.t.	E
	II		III		IV	
100	125	-	85	-	35	-
98-70	-	112.5	-	72	-	30

Ammonium nitrate ($H_4N_2O_3$) + Ammonium sulfate ($H_8N_2O_4S$)

Nikonova and Bergmann, 1942

%	f.t.	tr.t.	f.t.	tr.t.
	I		II	
0	169.6	-	125	-
10-65	-	180	-	110
	III		IV	
0	84	-	32	-
10-65	-	87	-	-
10-40	-	-	-	50

Leskovich, 1955 (fig.)

mol%	flowing pressure (Kg/cm^2)			
	30°	40°	50°	60°
0	4800	4100	3700	3200
4	10000	8400	5900	5000
8	12600	11400	7200	6600
12	15000	12000	8400	7700

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D E S I R A T A

This is a list of desirata, that means a short list of papers that I was still unable to find : they would interest me, only if there are in them, numerical data about concentrated binary mixtures, or accurate data on very pure organic compounds and to anybody who is able to help me in that matter I would be very grateful .

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VARIA

Lamme	Programm Realschule,Glauchau (?),1897
Schuborth	Alkohometrie,Berlin,1847
Steinheil	Une Brochure sur la composition de la vapeur d'eau des melanges d'eau et d'alcool,München,1847
Völlmer	Festschrift Realgymnasium,Halle,1884
Zindler	Programm Gymnasium,Laybach,1863

SYMBOLS AND ERRATA

VOLUME I

Pages	Instead of	Correct to	Add
XII	For V_o :volume at 0%	volume at 0°	
	For D : diffusion ratio	diffusion coefficient	
	For C.S.T. and C.V.T. : T (absolute)	t (centigrade)	
			Az : azeotrope η and σ (water=1),means water at the same t. x_1 and x_2 = moles % Dη given by = $\eta-(x_1\eta_1+x_2\eta_2)$
1	Tabl. of Ruhemann : t	-t and invert %	
2	Tabl. of Sage and Lacey : mol %	%	
38	Mac Milan	Mac Millan	
68	Isooctane	2,2,4-Trimethylpentane	
107	Timmermans (to be put on p. 112)		
	Cyclohexane + Benzene	Cyclohexane + Toluene	
165-166			Polystyrene (C_8H_8)
170	$C_{14}H_{10}$	$C_{16}H_{10}$	
204	$C_{18}H_{40}$	$C_{18}H_{38}$	
220			Polyvinylchloride (C_4H_3Cl)
221			Chlortoluene-p
285	Propylbromide	Propylenebromide	
292	For Etard: % and f.t.	f.t. and %	
390	$C_8H_{18}O_2$	$C_8H_{14}O_2$	
395	$C_3H_7O_2Cl$	C_3H_5OCl	
398	$C_4H_{10}O$	$C_8H_{18}O$	
	$C_{57}H_{104}O_9$	$C_{57}H_{104}O_6$	
410	$C_8H_{18}O_2$	$C_8H_{14}O_2$	
417	$C_3H_7O_2Cl$	C_3H_5OCl	
420	"	"	
474			Polyvinylacetate ($C_4H_6O_2$)
	$C_{10}H_{18}O_2$	$C_{10}H_{18}O_3$	
483	$C_3H_7O_2Cl$	C_3H_5OCl	
488	$C_{14}H_{14}O_2$	$C_{14}H_{12}O_2$	

VOLUME I

Pages	Instead of	Correct to	Add
502	$C_{11}H_{14}O$	$C_{11}H_{14}O_2$	
515			Polyvinylstyrene (C_8H_8)
531			Alkenes : C_6H_{12} for the first three and C_7H_{14} for the last three .
	5-Methyl + hexene	Methyl-hexene	
533			Dimethyl-1,3-cyclopentane
606	$C_{10}H_{16}$	$C_{10}H_{12}$	
	p-Aminoacetanilide 70	p-Aminoacetanilide 248	
		p-Aminoethylacetanilide 70	
668	For Methyl chloride + Fenchone	correct the % to (100 - %)	
693	For Karr	invert order of b.t.	
701	$C_{11}H_{17}OBr$	$C_{11}H_{15}O_2Br$	
729	$C_{12}H_{22}O_6$	$C_{12}H_{18}O_6$	
747			Fluorethene (C_2ClF_3)
			Butylphthalate ($C_{16}H_{22}O_4$)
			Butylsebacate ($C_{18}H_{34}O_4$)
836	$C_8H_{16}O$	$C_8H_{14}O$	
886	$C_{11}H_{20}O_4$	$C_9H_{16}O_4$	
896	$C_{12}H_{20}O$	$C_{12}H_{20}O_2$	
906	$C_{11}H_{20}O_4$	$C_9H_{16}O_4$	
911	$C_{14}H_{22}O_2$	$C_{14}H_{22}O_8$	
914	$C_8H_{16}O_5$	$C_8H_{16}O_4$	
	$C_{14}H_{13}O_2$	$C_{14}H_{12}O_2$	
969	$C_6H_{10}O_3$	$C_6H_{10}O_2$	
995	Nitrotoluene	Nitrotoluene-o	
999	"	" -p	
1023	$C_{14}H_{14}O_2N_2$	$C_{14}H_{10}O_2N_2$	
1038	$C_{12}H_{20}O$	$C_{12}H_{20}O_2$	
1182	Chlorobromacetanilide	Chlorobromacetanilide	
1198	$C_{46}H_{50}O_{10}N_4$	$C_{21}H_{22}O_2N_2$	
1246			Ethylnitrobenzoate-p
1256	$C_6H_{11}O_7N_3$	$C_{16}H_{11}O_7N_3$	

VOLUME II

Pages	Instead of	Correct to	Add
131	Ethanol	Ethoxyethanol	
145	1,2-Dichlor-1-propanol	2,3-Dichlor-1-propanol	
220	Othmer,1928		
	% of L and V	(100 - %)(correct twice)	
238	$C_7H_6O_3$	$C_8H_6O_3$	
239	jellow	yellow	
283	ad b.t.	at b.t.	
284	10^{12} dyn/cm^2	. 10^{12}	
340	$C_{12}H_{12}O_2$	$C_9H_{12}O_2$	
418	Complex chloral + ...	Chloralmethyl tartrate ($C_6H_9O_6Cl_3$)	
531	Taboury and Lestrade	The Fig. is erroneous	
570	$C_3H_6O_2$	$C_4H_6O_2$	
602	$C_{16}H_{26}O_6$	$C_{16}H_{26}O_8$	
649	$C_{18}H_{18}O_6$	$C_{18}H_{18}O_5$	
793	Collidine-2,4,5	Collidine-2,4,6	
909			Dinitrophenol
1048			Malic acid l
1134	$C_4H_8O_2$	$C_4H_8O_3$	
1142	C_3H_7ON	$C_3H_7O_2N$	
1218			Dimethylglutaric acid d
1226			Mandelic acid d
1228			" " "

VOLUME III

Pages	Instead of	Correct to	Add
232	$B_8Na_2O_{131}$	B_4NaO_7	
466			Sodium-p toluene sulfonate
807	Wasif	Gillespie and Wasif	
817			25° to Gibson,1935
916	31255	31215	
1203	mol %	M	
1204	"	"	
1252	Scherer : %	c	
1253	" "	"	
1283	KH_6O_4P	KH_2O_4P	

VOLUME IV

Pages	Instead of	Correct to	Add
1	To H_2 + He and H_2 + D_2		(at room temperature)
9	$C_{11}H_{14}O_5$	$C_{11}H_{14}O_2$	
85			Dicyclohexylamine ($C_{12}H_{23}N$)
479			Strychnine tartrate ($C_{46}H_{50}O_{10}N_4$
617	$B_{10}H_8N_2O_{16}$	$B_5H_4NO_8$	
759	SCl or SCl_2	S_2Cl_2	
892	" "	"	

Notice for Users

1. Scope of the work

The data compiled refer only to binary systems, concentrated solutions.

As components, I have accepted all kinds of substances, elements or compounds, with the exception of metallic alloys, a category covered by many other books.

As concentrated solutions, I choose to consider arbitrarily systems between 10 and 90 per cent by weight; I left also out of consideration data relating to dilute solutions, if there is only one measure between 10 and 20 % .

All data, so far as possible, have been reproduced from the original publications, if available; in other cases, the actual source of the data is given in the bibliographic reference. Preference has been given to the experimental data, rather than to values interpolated from a formula; in many cases we had to read the data from graphs, with help of a grating (this is denoted by "fig").

2. General Plan

All data are classified by systems, since values of different properties may help to caracterise their physical nature.

The systems have been arranged in four categories, one for each volume of this book, as follows:

A. Both components are organic compounds, excepting the hydroxyl derivatives.

B. Both components are organic compounds, one at least being a hydroxyl derivative.

C. One at least of the components is a metallic compound.

D. All other systems.

In that volume are also included the general table of bibliographic references and the general table by substances.

I consider as non-metals the following twenty elements:

B - C,Si - N,P,As - O,S,Se,Te -
H,F,Cl,Br,I - He,Ne,Ar,Kr,Xe

I call non-metallic compounds those with only these elements; and organic compounds all such compounds with at least one atom of C. As metallic compounds, I consider all those with at least one metallic atom. Ex.: CSi is an organic compound, sodium benzoate a metallic one, and HCl a non-metallic one.

3. Order of the systems

In each section, the binary mixtures are brought together in great divisions, according to the degree of physico-chemical similitude of their components; for ex., in the third volume, the first part deals with mixtures of two metallic salts, the second one with solutions of metallic salts in water and the third, with solutions of these salts in all other solvants, non-metallic or organic.

In each of these divisions, the binary mixtures are listed, according to the order of the first component, and, for each of them, according to the order of the second component; for ex., all systems with methane come first, methane + butane being listed before methane + benzene, since butane comes before benzene in my classification.

a) For organic compounds, the general order is: hydrocarbons, halogen derivatives, oxygen derivatives (excluding the hydroxyl ones), nitrogen, mixed oxygen and nitrogen derivatives, and last the hydroxyl derivatives of any kind.

In each of these groups, the aliphatic derivatives come first (saturated and then unsaturated), then the polymethylenes, the aromatic compounds and finally the heterocyclic ones.

The sulfur derivatives are listed after the corresponding oxygen ones, the phosphorus, after the nitrogen ones, the silicon and boron after the carbon ones. In each group, the derivatives produced by halogen substitution are placed at the end of the respective group; for ex., ethylenchlorhydrin comes at the end of the alcohol group.

In accordance with this rule, we have the following arrangement:

Hydrocarbons: paraffins, ethylenic and acetylenic hydrocarbons, polymethylenes and aromatic hydrocarbons.

Halogen derivatives: derivatives of the same hydrocarbon are grouped together, in order of the number of hydrogen atoms substituted by halogen atoms, fluorine derivatives first, then chlorine, bromine and iodine derivatives.

Oxygen derivatives: first the ether oxides, with open chain (ethyl ether) or closed ring (dioxane), the aldehydes and ketones, the anhydrides, and finally the esters.

Nitrogen derivatives: nitriles and amines.

Mixed Oxygen and Nitrogen derivatives: compounds of the amide type, and then nitroso- and nitro- derivatives.

Hydroxyl derivatives: first the alcohols and oximes, then the phenols and finally the acids.

N.B. The presence in the molecule of a chemical function listed later, relegates this compounds to the end of that category, for ex., acetoacetic esters come after the esters.

b) Metallic Compounds. Most of them are electronic compounds which are classified as follows:

The salts, oxides, sulfides, etc. come together, so long as the metal has the same electrovalency, for ex., the ferrous compounds are classified with nickel, cobalt, manganese ones. but the ferric compounds, with aluminum and chromic salts.

The metallic ions are classified in series of the same electrovalency, according to the periodical table:

Li, Na, K, Rb, Cs, Tl^{+} - Cu^{+}, Ag, Au^{+}, Hg^{+}

Be, Mg, Ca, Ba, Sr, Sn^{++}, Pb^{++} - Zn^{++}, Cd^{++}, Hg^{++}, Cu^{++}, Mn^{++}, Fe^{++}, Ni^{++}, Co^{++}

Al, Ga, In, Tl^{+++}, Cr^{+++}, Fe^{+++}, Rare Earths - Sb^{+++}, Bi^{+++}.

Ge, Ti, Th, Sn^{++++}, Pb^{++++} - Uranyl.

For each metallic ion, the salts are arranged according to the valency of the anion and the oxygenated salts after all others, as follows:

fluorides, chlorides, bromides, iodides, cyanides, thiocyanates, etc.;

oxides, sulfides, selenides, etc. - nitrides, borides, carbides, silicides;

hydrates, thiohydrates - nitrites, chlorites...

chlorates, bromates, iodates, nitrates;

phosphites, arsenites;

perchlorates - permanganates;

phosphates, arsenates, etc.;

carbonates, sulfites, metasilicates;

sulfates, selenates, chromates, manganates;

orthosilicates.

4. Order of the constants.

So far as possible, especially for systems where the data are particularly numerous, the order in which the properties are classified is as follows:

a) Heterogeneous equilibria:

Critical constants; saturates vapour pressure for the triphase equilibrium.

Vapour pressure curve; boiling curve and azeotropes.

Composition of liquid and vapour coexisting phases.

Densities of coexisting phases and rectilinear diameter.

Composition of the two liquid phases and eventually of the saturated vapour; critical solution point.

Freezing and melting curve; eutectic and transition points.

Equilibria of the condensed phases under high pressure.

b) Properties of phases: first for the gas, then the liquid and finally the mixed crystals:

Densities, coefficients of expansion and of compressibility.

Viscosity and surface tension.

Refractive index and optical dispersion.

Dielectric constant; electrical conductivity.

Optical rotatory power.

Magnetic rotation; magnetic susceptibility.

c) Thermal constants:

Specific heat; heat of solution or mixing.

Heat of vaporization and fusion.

Thermal conductivity.

5. Choice of units.

So far as possible, we have always used units of the c.g.s. system; when necessary, we have converted the original results into these units, so far as it did not involve the use of a coefficient whose value has changed sometimes. Ex: we could, without any ambiguity, transform specific volumes into densities, or density d_t^t into d_4^t; but to transform molar concentration in weight concentration, if not made by the author himself, would have involved a somehow arbitrary choice of atomic weights.

All our numerical data have been taken as given in the original paper; we always gave priority to direct experimental results, rather than recalculated curves.

Here follow some additional details about the choice of units:

Viscosity: in poises . 10^5

Surface tension: in dynes/cm

Temperature: t in centigrade; T = absolute temperature = t + 273.16

Pressure: p - in mm Hg; P - in atmospheres; P_{kg} - in kg/cm^2

π and τ represent pressure or temperature coefficient of the constant considered, which means its change by kg or by degree; but when it relates to volume changes, π and τ are coefficients of compressibility or expansion, as given by the formulae:

$$v_t = v_0 \;.\; (1 + \tau . t) \quad \text{and}$$
$$v_P = v_1 \;.\; (1 - \pi . P)$$

Specific heat: in calories / gram of mixture

Heat of mixing, heat of vaporization, etc. - in calories / mole of mixture.

In case other units were exceptionally used, this is expressely stated in column headings.

N.B. Scientists of the whole world always agree to give their results in units of the metric system; only in Anglo-Saxon countries, did some authors give also their results in British units, for the ease of their technicians. But in recent years some American physico-chemists, namely Sage and his co-workers, have published in Industrial and Engineering Chemistry some extensive tables of data on isotherms of mixtures of hydrocarbons, only in British units (°F, pressure in Lb/sq.in., etc.), without any corresponding tables in metric values, which makes them quite unsuitable for general use in other countries. We have made in most cases the necessary calculations to reproduce these data in metric units, but this work is so laborious and tedious that we were unable to give the complete data; and we wish to protest here with energy against this new mode of publication, which takes no notice of the international scientific public.

6. Nomenclature and bibliographical data.

A. Nomenclature.

Inside this work the common names of the substances are used, with their molecular formulae; but in the Table at the end of the 4th volume, they are classified in the same order as in the Chemical Abstracts, with the different synonyms. For ex., the compound we call ethylene chloride in the book itself, is also named: 1,2-dichlorethane, in the table.

B. Bibliographical data.

Inside the book, the data are reproduced under the name of their author, with the year of publication. The complete bibliographical reference is to be found in the alphabetical list of authors, at the end of this book.

For the transcription of Russian names, we have applied the rules used in Chemical Abstracts. But in case of a Russian author, all of whose quoted publications have been printed in Latin caracters, we have reproduced his name as he had it transcribed himself; when necessary, we give also in the list of authors, the alternative transcription of his name.

7. Symbols and abbreviations.

α	Rotatory power, for the length = 10 cm
(α)	Specific rotatory power
$(\alpha)^{mol}$	Molar " "
$(\alpha)_{magn}$	Specific magnetic rotatory power
$(\alpha)^{mol}_{magn}$	Molar " "
ε	Dielectric constant
η	Viscosity, in poises $(.10^5)$*
$\varkappa$	Specific conductivity $(.10^4)$
λ	Equivalent conductivity
π	Pressure coefficient $(.10^6)$
σ	Surface tension, in dynes/cm
τ	Temperature coefficient
χ	Magnetic susceptibility $(.10^6)$ (specific)
C	Crystal
C.S.T.	Critical solution temperature
C.V.T.	" vaporization "
D	Diffusion coefficient $(.10^5)$
D_{therm}	Thermal diffusion coefficient
D b.t.	Boiling temperature difference
D f.t.	Freezing " "
Dp	Pressure difference
Dt	Temperature "
Dv	Volume "
E	Eutectic
L	Liquid
M	Molarity
N	Normal concentration
P	Pressure, in atmospheres
P_{kg}	" in kg/cm^2
Q comb	Heat of combustion (cal/gram mixture)
Q dil	" dilution (cal/mole mixture)
Q diss	" dissolution "
Q melt	" fusion "
Q mix	" mixing "
Q trans	" transition "
Q vap	" vaporization "
R	Resistivity
S	Solid
T	Absolute temperature
U	Specific heat (cal/gram mixture)
V	Vapour
aq	Aqua, water
atm	Atmosphere
b.t.	Boiling temperature
c	g/100 cc solution
cc	Cubic centimeter
cal	Calorie (small)
crit.	Critical
d	Density (t/4)
dissoc.	Dissociation
e	Electromotive force (in volts)
f.t.	Freezing temperature
g	Gram
l	Liter
m	Molality
mm	Millimeter
mg	Milligram
min	Minutes
mol	Molar
m.t.	Melting temperature
n	Refractive index
p	Pressure in mm Hg
sat.t.	Saturation temperature (mutual solubility)
sol.	Solution
s. or sym.	Symmetrical
t	Temperature, centigrade
tr.t.	Transition temperature
trans.	Transition
vol	Volume
v_o	Volume at 0%
w.l.	Wave length (in Ångström unit)
%	Weight percent
I, II, etc.	Polymorphic forms
I - II	Transition of form I into form II

* The given powers for some units are systematically used in the Tables, unless otherwise stated.

SYMBOLS AND ABBREVIATIONS

α	Rotatory power, for the length 10 cm
(α)	Specific rotatory power
$(\alpha)^{mol}$	Molar " "
$(\alpha)_{magn}$	Specific magnetic rotatory power
$(\alpha)^{mol}_{magn}$	Molar " "
ε	Dielectric Constant
η	Viscosity, in poises $(.10^5)$*
$\varkappa$	Specific conductivity $(.10^4)$
λ	Equivalent conductivity
π	Pressure coefficient $(.10^6)$
σ	Surface tension, in dynes/cm
τ	Temperature coefficient
χ	Magnetic susceptibility $(.10^6)$ (specific)
C	Crystal
C.S.T.	Critical solution temperature
C.V.T.	" vaporization "
D	Diffusion coefficient $(.10^5)$
D_{therm}	Thermal diffusion coefficient
D b.t.	Boiling temperature difference
D f.t.	Freezing " "
Dp	Pressure difference
Dt	Temperature "
Dv	Volume "
E	Eutectic
L	Liquid
M	Molarity
N	Normal concentration
P	Pressure, in atmospheres
P_{kg}	" in kg/cm^2
Q comb	Heat of combustion (cal/gram mixture)
Q dil	" dilution (cal/mole mixture)
Q diss	" dissolution "
Q melt	" fusion "
Q mix	" mixing
Q trans	" transition "
Q vap	" vaporization "
R	Resistivity
S	Solid

T	Absolute temperature
U	Specific heat (cal/gram mixture)
V	Vapour
aq	Aqua, water
atm	atmosphere
b.t.	Boiling temperature
c	g/100 cc solution
cc	Cubic centimeter
cal	Calorie (small)
crit.	Critical
d	Density (t/4)
dissoc.	Dissociation
e	Electromotive force (in volts)
f.t.	Freezing temperature
g	Gram
l	Liter
m	Molality
mm	Millimeter
mg	Milligram
min	Minutes
mol	Molar
m.t.	Melting temperature
n	Refractive index
p	Pressure in mm Hg
sat. t.	Saturation temperature (mutual solubility)
sol	Solution
s. or sym.	Symmetrical
t	Temperature, centigrade
tr. t.	Transition temperature
trans.	Transition
vol	Volume
v_0	Volume at 0%
w.l.	Wave length (in Ångström unit)
%	Weight percent
I,II,etc.	Polymorphic forms
I - II	Transition of form I into form II

* The given powers for some units are systematically used in the Tables, unless otherwise stated.

FORMULA INDEX

(Inorganic substances)

GENERAL INDEXES.

FORMULA INDEX

(Organic compounds)

The order of formulae is the same as in the Chemical Abstracts, but in each series of C_1, C_2, etc, we have put together the compounds with one other element, two elements, etc.

Next Page

$C_9H_{20}S_4$

II,420

$C_9H_{21}N$

Tripropylamine

I, 964

IV, 720

C_9BrH_7O

1-Bromocinnamic aldehyde

I, 854

$C_9BrH_9O_2$

Ethyl p-bromobenzoate

I, 916

$C_9BrH_{10}NO$

p-Bromopropionanilide

I, 1181

C_9ClH_7O

1-Chlorocinnamic aldehyde

I, 854

$C_9ClH_9O_2$

Ethyl p-chlorobenzoate

I, 916

$C_9ClH_9O_3$

α -(4-Chlorphenoxy) propionic acid (d) and (1)

II, 1256, 1263

$C_9ClH_{20}NO_2$

1-Leucine propyl ether hydrochloride

II, 892

$C_9Cl_2H_8O_3$

α -(2,4-Dichlorphenoxy) propionic acid (d) and (1)

II, 1263

α -(3,4-Dichlorphenoxy) propionic acid (d) and (1)

II, 1264

$C_9Cl_2H_9NO$

Dichloroacetomethylanilide

I, 1182

Dichloroacetobenzylamide

I, 1183

$C_9Cl_3H_7O_3$

2,4,5-Trichlorphenoxy propionic acid (d) and (1)

II, 1264

$C_9Cl_3H_{15}O_7$

complex Ethyl tartrate + chloral

II, 1116

C_9H_7NO

8-Oxyquinoline

II, 574, 575, 1076, 1077, 1150

$C_9H_7NO_2$

Methylphtalimide

I, 1138

$C_9H_8N_2O_4$

4-Phenyl-5-methyl-1,2,3,6-dioxydiazine

I, 1203

Phenylmethylfurosane

I, 1203

$C_9H_8N_2O_6$

Ethyl-3,5-dinitrobenzoate

I, 1246

$C_9H_8N_2O_7$

α -(2,4-Dinitrophenoxy) propionic acid (1)

II, 1263, 1265
